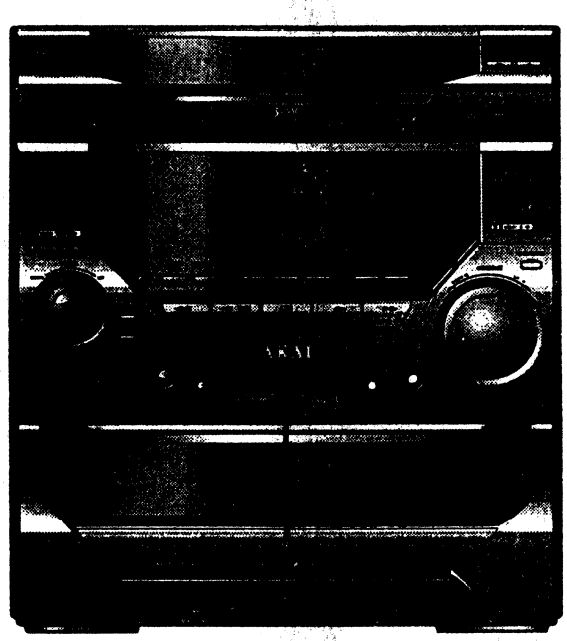
AKAI SERVICE MANUAL



• The above illustration shows the AC-720 model.

DOLBY B NR

COMPACT disc DIGITAL AUDIO

DOLBY SURROUND PRO • LOGIC

MINI STEREO COMPONENT SYSTEM

MODEL **AC-520/523R/525K**

MODEL **AC-720/723R/725K**

MODEL **SR-525/720**

CONTENTS

SAFETY INSTRUCTIONS 2

INFORMATIONS 3

SPECIFICATIONS 4

CONTROLS 6

I. DISASSEMBLY 8

II. PRINCIPAL PARTS LOCATION 9

III. DISASSEMBLY OF MAIN COMPONENTS 11

IV. MECHANICAL ADJUSTMENT 16

V. ELECTRICAL ADJUSTMENT 17

VI. PARTS LIST 19

VII. ABBREVITIONS 36

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ (*) symbol parts are critical for safety. Replace them only with parts whose numbers are specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selection switches, RF cables, noise-blocking capacitors, noise-blocking filters, etc.
3. Use specified internal Wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulating Tape
   2) PVC tubing
   3) Spacers (insulating barriers)
   4) Insulating sheets for transistors
   5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitor, etc.), wrap ends of wires securely about the terminals before soldering.

6. Make sure that wires do not contact heat generating parts (heat sinks, oxide metal film resistors, fusible resistors, etc.)
7. Check if replaced wires do not contact sharply edged or pointed parts.
8. Also check areas surrounding repaired parts.
9. Make sure that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can.
Please leave them at an appropriate depot.

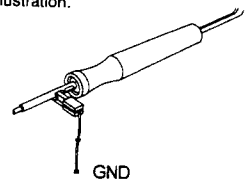
SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to check if exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts, (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resister of 1500 ohm paralleled with a 0.15 μ F capacitor, under the unit's normal working condition.
The leakage-current should be less the 0.5mA rms AC.
The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch "ON" (if included). The resistance should be more than 2.2Mohms.

PRECAUTIONS IN REPAIRING

When repairing or adjusting the unit, please note the following points

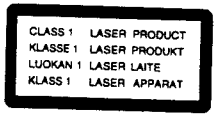
1. Do not put excessive pressure on the mechanical part (operation part), including the pick-up block, as extremely high mechanical precision is required in these parts.
2. When the base is removed for repair or adjustment. Make sure that there are no metal objects between the P.C board or the mecha parts and the base.
3. The Micro-Computer and the CD signal processing ICs may be damaged by static electricity or leakage from a soldering iron during repairing. While soldering, please take the precautions against leakage as in the illustration.



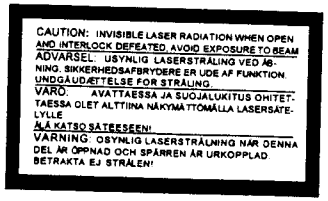
4. Do not loosen any screws in the pick-up block. Please refer to NOTE when replacing the pick up block.
5. To avoid hazardous invisible Laser Radiation, do not look at the Laser Beam (Objective lens) directly.
6. On model for some countries, laser warning labels are affixed on and inside of the unit as shown below. For your safety, read these labels carefully before repairing or adjusting the unit.

CAUTION

The use of controls or adjustments or the performance of procedures other than those specified herein may result in hazardous radiation.
[EUROPE, SCANDINAVIA, UK and AUSTRALIA]



Label affixed on the rear panel of the unit


CAUTION: INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED. AVOID EXPOSURE TO BEAM
ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING. SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO: AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLÄ LASERSÄTEILYLLE
ÄLÄ KATSO SÄTEESEEN!
VARNING: OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN!

Label affixed on the CD MECHA BLOCK

INFORMATION

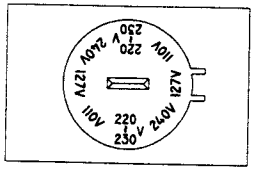
SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbol	Principal Destination
A	USA
B	UK
E	Europe (except, UK)
S	Australia
V	Germany
U	Universal
Y*	Custom version

VOLTAGE CONVERSION(U Y Model only)

Before connecting the power cord, set the VOLTAGE SELECTOR located on the rear panel of the AC-515K/715K so that the correct voltage for your area is indicated.



[U5,U8, Y6, Y7]

TEST MODE

Various kind of test modes are installed in this unit's microcomputer in order to test them on the production line. Following test modes among the various test modes can be used for adjustment, operation check or maintenance. To terminate the test mode, simply press the "POWER ON/STANDBY " button or disconnect the AC power cord from the AC outlet.

1. DECK TEST MODE

This test mode can be used for tape speed adjustment as well as bias oscillator frequency adjustment in TAPE DECK section.
While pressing and holding the "TAPE II" and "▶" (F) buttons, connect the AC power cord to AC outlet. The function turns to "TAPE I" and "DUBX1" as well as " "T P I □ □ □ □" indicators on the FLD light when this mode is engaged.

2. DECK CLEANING MODE

This test mode can be used for cleaning of the TAPE DECK mechanism.
Because, this mode enables engaging of the playback, fast forward (FF), and rewind (RWD) modes without a cassette tape, it makes the cleaning (such as the capstan shaft, magnetic head, pinch roller etc.,) easier.
While pressing and holding the "TAPE I" and "◀ II" (F) button, connect the AC power cord to the AC outlet. The tape run indicator lightwithout the cassette tape when this mode is engaged.

SPECIFICATIONS

[Tuner Section]

Frequency range

FM ..... 87.5-108MHz(50KHz step)
MW ..... 530-1710KHz(U8)
531-1602KHz (except U8)
LW ..... 144-288KHz(1KHz step) (E1/E2/E3/B1 only)
SW ..... 3.8-12.5MHz(5KHz step) (Y7 only)

USABLE SENSITIVITY

FM ..... 16.2dBf IHF,3%THD (except E1/E2/E3/B1)
20.2dBf IHF, 3%THD (E1/E2/E3/B1)
MW 500uV/m
LW 800uV/m
SW 800uV/m

S/N Ratio(IHF)

FM ..... MONO 75dB, STEREO 65dB
MW 40dB
LW 30dB
SW 30dB
Stereo separation ..... 40dB(at 1KHz)

[AMPLIFIER Section]

Power output ..... (AC-520/523R/525K) 100W+100W(6ohms, 10%THD, EIAJ)
80W+80W (6ohms, 1%THD, DIN)
(AC-720/723R/725K) 133W+133W(6ohms, 10%THD, EIAJ)
106W+106W (6ohms, 1%THD, DIN)
Input sensitivity (AUX IN) 390mV/47KΩ
channel separation 64dB
Frequency response ..... 10Hz-100KHz(-3dB)

[DECK SECTION]

Track system ..... 4track, 2channel system
Frequency response ..... 40Hz-15KHz (Normal tape, ±3dB)
40Hz-16KHz(Cro2 tape, ±3dB)
Wow & Flutter ..... 0.09% (WRMS), 0.15%(DIN)
S/N ratio ..... Dolby B 63dB (5KHz)
Dolby off 53dB (Cro2 tape)
Total harmonic distortion ..... less than 0.5%(normal tape at 315Hz)
Channel separation 43dB

[CD SECTION]

Pick up system ..... 3Beam Laser
Sampling frequency 44.1KHz
Error correction system ..... Cross interleave read solomon
Number of channels 2Channe
Frequency response 20Hz-20KHz
Wow & Flutter ..... Below measurable limits
S/N ratio 83dB
Total harmonic distortion ..... 0.035% (at 1KHz)
Channel separation ..... 73dB(at 1KHz)
Dynamic range ..... 82dB (at 1KHz)

[GENERAL]

Power requirement
E1/E2/E3/B1/S1 ..... AC 220-230V/50Hz
U5/U8/Y6/Y7 ..... AC 110/127/220-230/240V, 50/60Hz
Power consumption 120W/AC-520/523R/525K, 200W/AC-720/723R/725K
Weight 8.7Kg/AC-520/523R/525K, 10.2Kg/AC-720/723R/725K

[SPEAKER SECTION]

ITEM	SR-525	SR-725
System Constructions	3-way 3-speakers	3-way 3-speakers
Woofer Unit	135mm Cone type	135mm Cone type
Midrange Unit	65mm Cone type	65mm Cone type
Tweeter Unit	50mm type (ambiance)	50mm type (ambiance)
System Impedance	6Ω	6Ω
Maxium Power Input	120w	160w
Sensitivity	more than 87dB/w/m	more than 87dB/w/m
Frequency Response	55Hz-20KHz	50Hz-20KHz
Harmonic Distortion	less than 3%	less than 3%
Enclosure Type	bass reflex type	bass reflex type
Units Layout	L/R mirror layout	L/R mirror layout
Dimensison	220(W)X388(H)X266(D)	200(w)X388(H)X266(D)
Net Weight	3.9Kg/pc	4.9Kg/pc

For improvement purposes, specifications and design are subject to change without notice.

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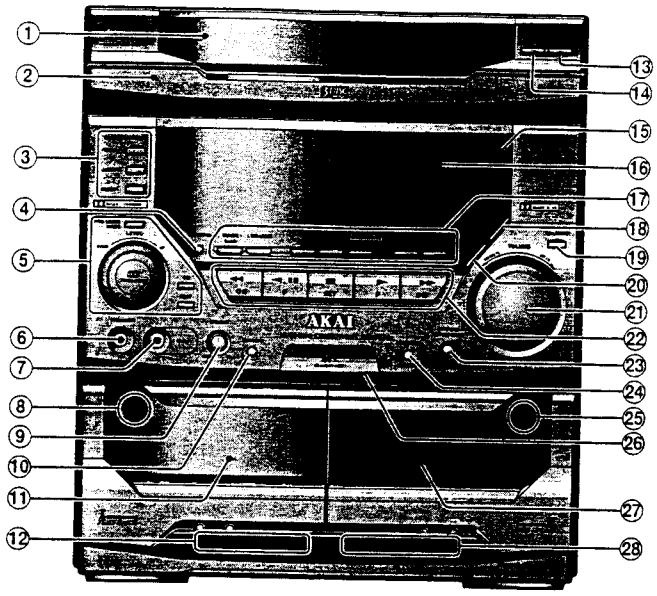
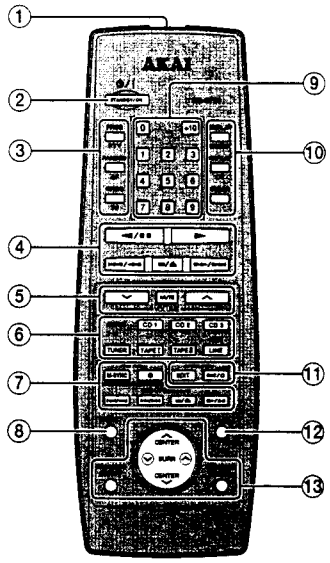
A MAIN UNIT



AC-720

1. PRO LOGIC FL display(AC-720/723R/725K only)
2. Disc tray
3. TIMER CONTROL buttons
   PROG button
   ON/OFF button
   SLEEP button
4. CH MEMO button
5. DOLBY PROG LOGIC operation buttons(AC-720/723R/725K only)
   PRO LOGIC MODE button
   CH button
   PROG LOGIC on/off button and LEVEL control
   TEST button
6. PHONES jack
7. MIC jack
8. Tape deck I PUSH OPEN button
9. Mixing control
10. Dimmer button
11. Tape deck I cassette compartment
12. Tape deck I direction indicator and transportation indicator
13. TRAY OPEN/CLOSE button
14. DISC CHANGE button
15. Remote sensor
16. System FL display
17. Input source select buttons(AUX is not included on the AC-520/523R/525K models)
    TUNER BAND, LIINE/AUX, CD1, CD2, CD3, TAPE I, TAPE II
18. DUB SPEEDx1/x2 button
19. BALANCE button
20. REC button
21. Volume control
22. Multi-function buttons
23. DYNAMIC SUPER BASS button
24. DOLBY NR button
25. Tape deck II PUSH OPEN button
26. STANDBY/ POWER ON button
27. Tape deck II cassette compartment
28. Tape deck II direction indicator and transportation indicator

B Remote Control



RC-S720

When using the remote control for operation, make sure that it is pointing to the remote sensor window on the main unit.

1. Transmitting window
2. ⏻/I POWER ON/STANDBY button
3. CD operation buttons/RDS buttons
   (The RDS function is only available on the AC-723R/523R)
4. Multi-function buttons
5. VOLUME buttons
6. Input source select buttons
7. MD operation buttons
   M-SYNC buttons
   ● REC button
   ⏮/◀◀ buttons
   ▶▶/⏭ buttons
   ■/⏏ buttons
   ▶/❚❚ buttons
8. PRESET button
9. CD/TUNER 11 KEY buttons
10. CD operation buttons/RDS buttons
    (The RDS function is only available on the AC-723R/523R)
11. TAPE REC buttons
    I●I/○ REC/PAUSE button
    EDIT button
12. FLAT button
13. PRO LOGIC operation buttons
    PROG LOGIC ON/OFF buttons
    PROG LOGIC MODE button
    CENTER ^/v buttons
    SURRound ^/v buttons

* These PROG LOGIC operation buttons are not included on the RC-S520 remote control (for AC-520/523R model operation)
These MD operation buttons can only be used if you have connected the optional MD recorder (MD-720).

Note:
The remote control can not be used for some functions that require the combined pressing of two tape transportation buttons (intro scan or auto play for example). Please Use the Main unit's multi-function buttons for the operation of such functions.

I. DISASSEMBLY

1-1. REMOVE OF MAIN COVER
1) Remove the seven screws on back and six screws on both sides.
2) Remove the MAIN COVER

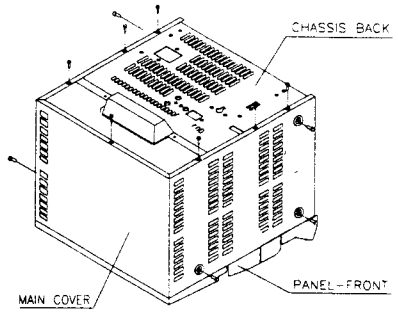


Fig. 1-1

1-2. REMOVE OF CD MECHA & FRONT PANEL
1) Remove the CD door
2) Remove the four screws (A) on both sides and disconnect three connectors and the flat cable from the TC-DK P.C.B.
3) Remove the CD player block
4) Remove the three screws (B) and two screws (C) on both sides.
5) Remove the FRONT PANEL

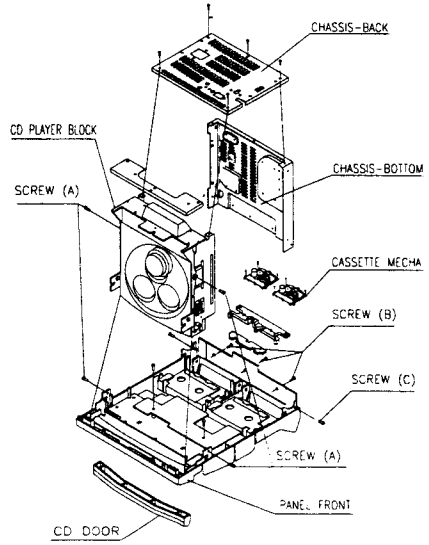


Fig. 1-2

II. PRINCIPAL PARTS LOCATION

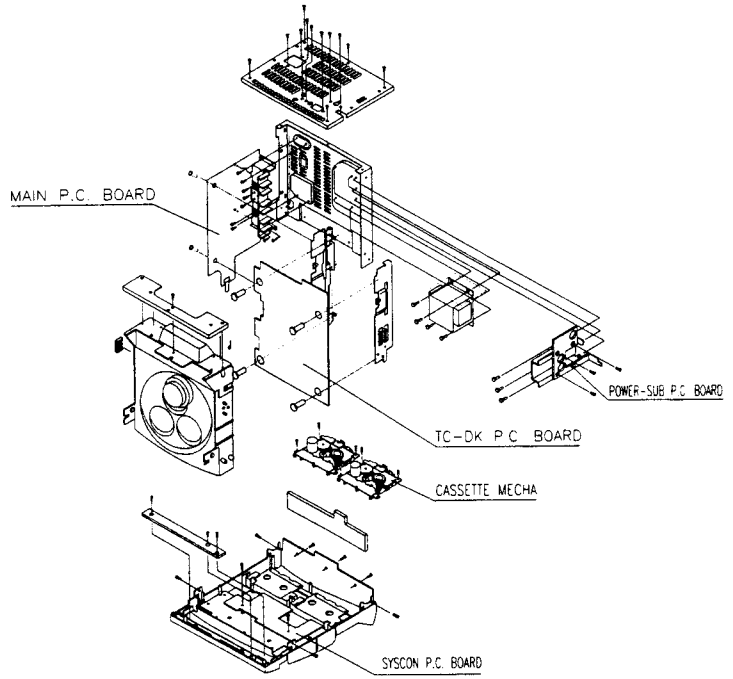


Fig. 2-1

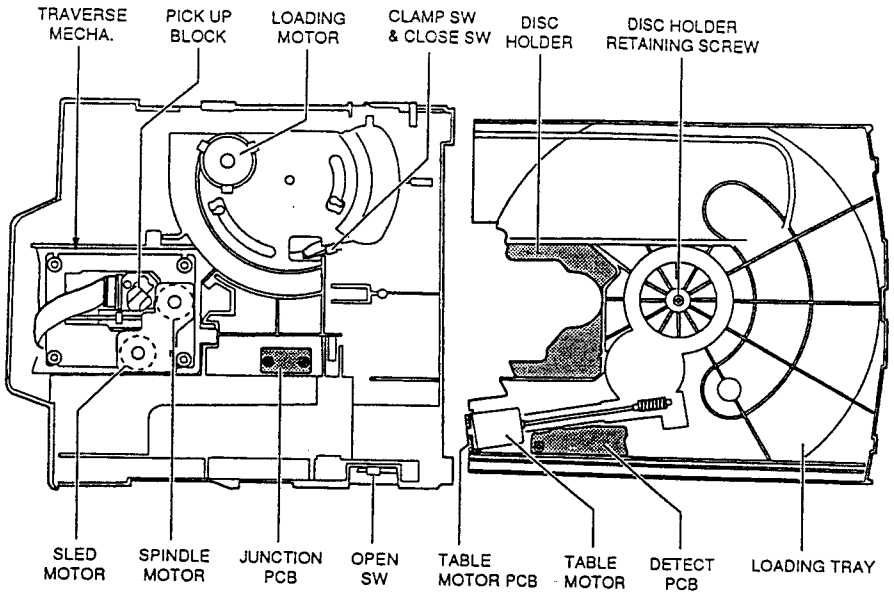


Fig. 2-2 CD PLAYER BLOCK

III. DISASSEMBLY OF THE MAIN COMPONENTS

3-1. CD PLAYER BLOCK

* Remove the CD PLAYER BLOCK before proceeding.

3-1-1. Removal of the TRAVERSE MECHA.

1) Remove the TRAVERSE COVER by releasing the two tabs in the direction of the arrow as shown in Fig. 3-1.

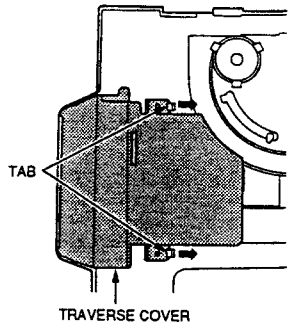


Fig. 3-1

2) Short the circuit on the PICK UP BLOCK with solder as shown in Fig. 3-2.

Note: To protect the laser diode from damage caused by high voltage static electricity, a part of the PCB on the PICK UP BLOCK has to be shorted before disconnecting the connectors. After replacement, be sure to connect the two connectors and then remove the solder of the shorted circuit before turning the power ON.

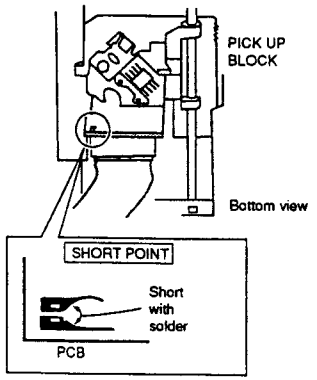


Fig. 3-2

3) Disconnect the two connectors carefully.

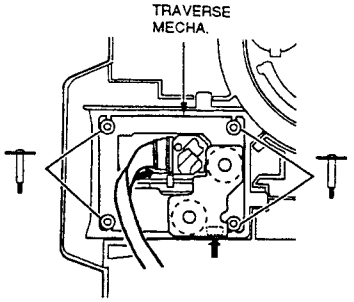


Fig. 3-3

4) Remove the four retaining screws, then remove the TRAVERSE MECHA.
5) Proceed in the reverse order for installation but never unsolder the shorted circuit before connecting the three connectors.

3-1-2. Replacement of the SLED MOTOR

1) Remove the TRAVERSE MECHA (refer to section 3-1-1).
2) Unsolder the leads of the SLED and SPINDLE MOTORs then remove the MOTOR PCB.

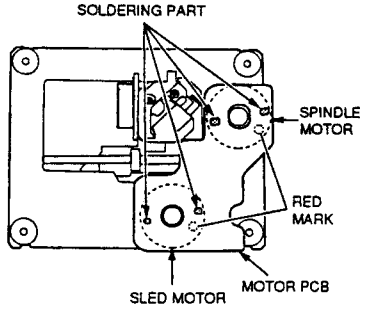


Fig. 3-4

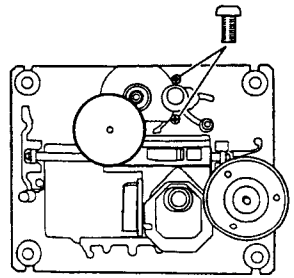


Fig. 3-5

3) Remove the two retaining screws, then remove the SLED MOTOR.
Next, extract the plastic gear from the motor shaft and attach it onto the new motor's shaft.
4) Reassemble in the reverse order.

About the SPINDLE MOTOR:
Replacement of the SPINDLE MOTOR itself is not recommended, because adjustment of the TURN TABLE height is quite critical and requires the use of a special jig.

3-1-3. Replacement of the PICK UP BLOCK

1) Remove the TRAVERSE MECHA (refer to section 3-1-1).
2) While pressing the Ⓐ stopper upwards, pull the SLIDE SHAFT to the right to remove the PICK UP BLOCK, then replace the PICK UP BLOCK.

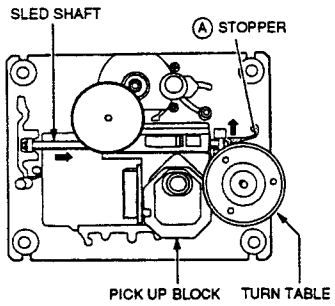


Fig. 3-6

3) Reassemble in the reverse order.

3-1-4. Replacement of the LOADING MOTOR

1) Slide the protruding part of the GEAR HOLDER PART in the direction of the arrow, then pull out the TRAY BLOCK.

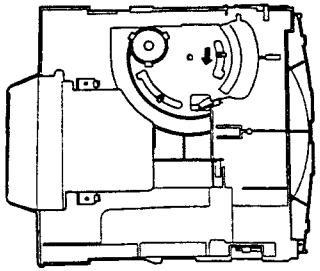


Fig. 3-7

2) Unhook the LOADING BELT with tweezers.

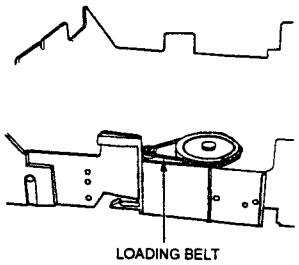


Fig. 3-8

3) Unsolder the lead wires of the LOADING MOTOR with a soldering iron.
4) While releasing the LOADING MOTOR's three retaining hooks, push the motor pully part down with your middle finger to remove the LOADING MOTOR, then replace it.

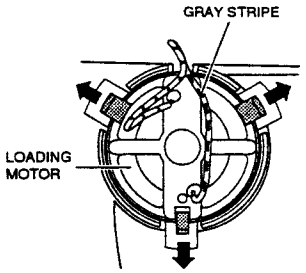


Fig. 3-9

5) Reassemble in the reverse order. Make sure that the wire with the gray stripe is connected to the motor's O marked terminal when soldering.

3-1-5. Removal of the TRAY BLOCK

1) If the TRAY BLOCK is in the "in" position, slide the protruding part of the GEAR HOLDER PART in the direction of the arrow and pull out the TRAY BLOCK slowly (refer to Fig. 3-7).
2) In order to disengage the two stoppers, carefully press the Ⓐ part of the TRAY BLOCK downwards while pulling the TRAY BLOCK out as shown in Fig. 3-10.

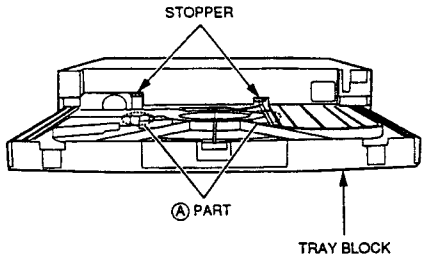


Fig. 3-10

4) Remove the TRAY BLOCK by pulling it out carefully.
5) Reassemble in the reverse order for installation. When reattaching the TRAY BLOCK to the chassis, carefully align the guides on both sides of the TRAY BLOCK with their corresponding rails on the chassis. Also, make sure that any one of the reference marks on the DISC HOLDER aligns with the reference mark on the LOADING TRAY.

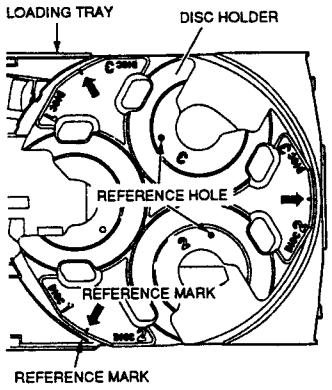


Fig. 3-11

Next, move the head of the GEAR HOLDER PART in the direction of the arrow before engaging the stoppers as shown in Fig. 3-12.

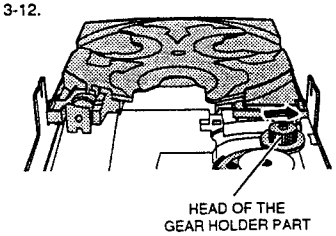


Fig. 3-12

3-1-6. Replacement of the TABLE MOTOR

1) Remove the TRAY BLOCK (refer to section 3-1-5).
2) Remove the DISC HOLDER retaining screw then remove the DISC HOLDER.

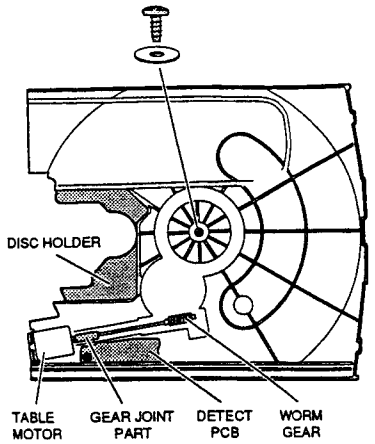


Fig. 3-13

3) Unsolder the leads of the TABLE MOTOR and remove the TABLE MOTOR PCB.

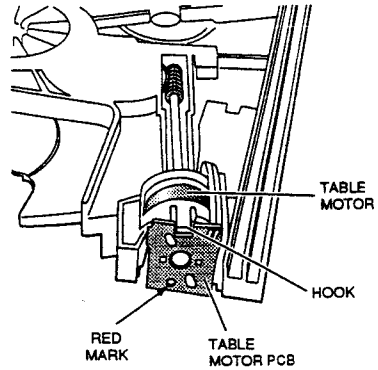


Fig. 3-14

4) Remove the TABLE MOTOR by pulling it out while opening the TABLE MOTOR retaining hook. Next, remove the WORM GEAR BLOCK by pulling the GEAR JOINT PART out and attach it to the new motor as shown in Fig. 3-13.
5) Reassemble in the reverse order.
- When soldering the TABLE MOTOR PCB on the TABLE MOTOR, the TABLE MOTOR's red mark must be visible through the hole on the TABLE MOTOR PCB.
- When attaching the DISC HOLDER on the LOADING TRAY, make sure to place the DISC HOLDER so that any one of the three reference marks aligns with the reference mark on the LOADING TRAY (any two reference holes on the DISC HOLDER align with the corresponding reference holes on the LOADING TRAY accordingly). (Refer to Fig. 3-11)

3-2. TAPE-I & TAPE-II MECHANISM BLOCK

* If CASSETTE MECHANISM BLOCK removal is intended, press both the "EJECT" buttons on the FRONT PANEL to open the CASSETTE HOLDERs and CASSETTE DOOR before proceeding (AC-600/603R/605K only).

3-2-1. Removal of the MECHANISM BLOCK

1) Remove the FRONT PANEL BLOCK.
2) Remove the four screws for each of the TAPE-I and TAPE-II MECHANISM BLOCKs then remove the MECHANISM BLOCKs from the FRONT PANEL BLOCK.

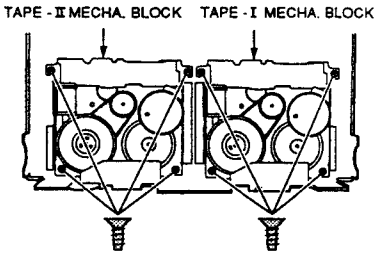


Fig. 3-15

3-2-2. Replacement of the CAPSTAN MOTOR

NOTE : After replacement, tape speed adjustment must be performed.

1) Unsolder the flat cable on the CAPSTAN MOTOR with a soldering iron.
2) While pressing the INTER-LOCK LEVER in the direction of the arrow, remove the two Ⓑ screws and then remove the CAPSTAN MOTOR.

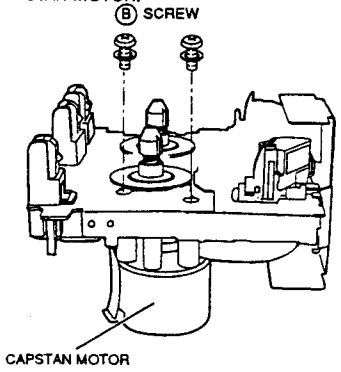


Fig. 3-16

3) Install a new motor and re-assemble in the reverse order for installation.

3-2-3. Replacement of the FR BELT

1) Unthread the MAIN BELT and replace the FR BELT as shown in Fig. 3-17.
2) Proceed in the reverse order for installation.

3-2-4. Replacement of the MAIN BELT

1) Remove the CAPSTAN MOTOR
2) Replace the MAIN BELT and re-assemble in the reverse order for installation.

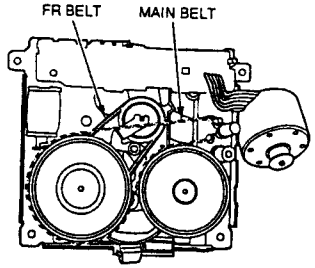


Fig. 3-17

3) After replacement, check the tape speed and if the result is not satisfactory, tape speed adjustment must be performed.

3-2-5. Replacement of the PINCH ROLLER BLOCK

1) Extract the PINCH ROLLER BLOCK upwards while releasing the pinch roller retaining hook in the direction of the arrow.

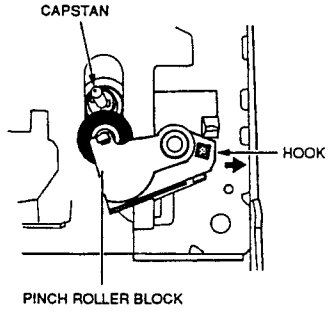


Fig. 3-18

2) Replace the PINCH ROLLER BLOCK and re-assemble in the reverse order. Attach the spring in the correct position when placing the PINCH ROLLER BLOCK.

3-2-6. Replacement of the PB HEAD OR REC/PB HEAD

1) Remove the two Ⓐ screws and remove the HEAD SHIELD PLATE.

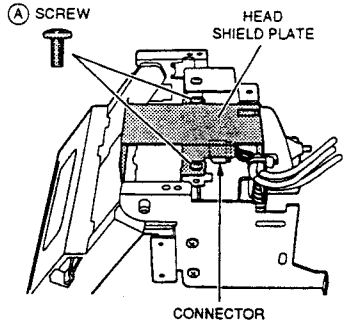


Fig. 3-19

2) Disconnect the connector on the CONNECTOR PCB and remove the PCB retaining screw.

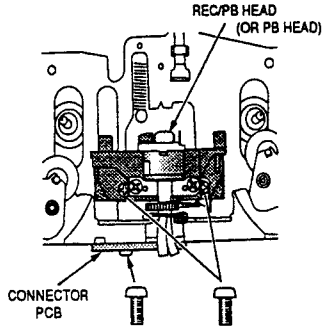


Fig. 3-20

3) Remove the two head retaining screws and remove the HEAD BLOCK.
4) Reassemble in the reverse order. After replacement, demagnetize the HEAD then perform head azimuth adjustment.

IV. MECHANICAL ADJUSTMENT

4-1. ADJUSTMENT OF THE HEAD AZIMUTH ALIGNMENT

1) Connect an oscilloscope to the L-ch and R-ch LINE terminals of the unit.

2) Play back a 10 kHz (–15 dB), HEAD AZIMUTH ALIGNMENT TEST TAPE (TF-106CH) then adjust the HEAD AZIMUTH ALIGNMENT Ⓐ (FWD PLAY) and Ⓑ (REV PLAY) SCREWs respectively so that the waveform level of both the L-ch and R-ch are at maximum and also they are in the same phase in both FWD and REV directions. (Use a sharp edge philips type screwdriver that is de-magnetized for adjustment.)
Perform the adjustment on both the TAPE-I and TAPE-II heads if necessary.

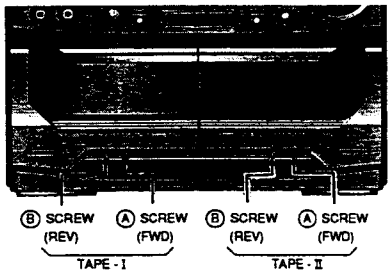


Fig. 4-1

V. ELECTRICAL ADJUSTMENT

5-1. TAPE DECK SECTION

NOTE :
1) The following adjustment should be performed in the "DECK test mode".
To engage the DECK test mode, connect the AC power cord to the AC outlet while pressing the "TAPE-II" and "▶ (F)" buttons together.
When the "DECK test mode" is engaged, the "DUBX1" indicator on the FL display will light.
2) When performing the tape speed adjustment, observe the following notes.
- Adjustment should be started more than 30 seconds after the power is switched ON.
- Adjustment should be made on X2 speed mode first then adjust the normal speed mode.
- Adjustment should be made in the forward direction.

3) To disengage the "DECK test mode", press the "POWER" button or unplug the AC power cord from the AC outlet.

STEP	ADJUSTMENT
1.	Test tape/input signal
2.	Mode
3.	Check point, adjustment part
4.	Remarks (•) and result (✱)

Adjustment Part →
Test Point

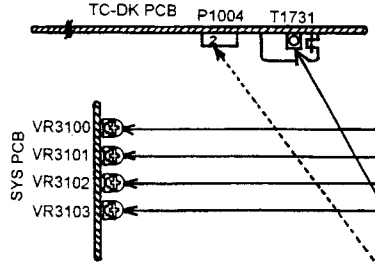
1 TAPE-I (X2) TAPE SPEED
1. 3,150 Hz test tape (TF-110CT)
2. TAPE-I, PLAY
3. LINE OUT, VR3100
4. • Connect a frequency counter to the LINE OUT (L or R) and press the "DUBBING" button to engage double speed.
✱ 6,340 ± 20 Hz

2 TAPE-I NORMAL TAPE SPEED
1. 3,150 Hz test tape (TF-110CT)
2. TAPE-I, PLAY
3. LINE OUT, VR3101
4. • Connect a frequency counter to the LINE OUT and press the "▶ (F)" button again to resume normal tape speed.
✱ 3,150 ± 10 Hz

3 TAPE-II (X2) TAPE SPEED
1. 3,150 Hz test tape (TF-110CT)
2. TAPE-II, PLAY
3. LINE OUT, VR3102
4. • Press the "TAPE-II" button and play back the test tape.
• Connect a frequency counter to the LINE OUT and press the "DUBBING" button to engage double speed.
✱ 6,320 ± 20 Hz

4 TAPE-II NORMAL TAPE SPEED
1. 3,150 Hz test tape (TF-110CT)
2. TAPE-II, PLAY
3. LINE OUT, VR3103
4. • Connect a frequency counter to the LINE OUT and press the "▶ (F)" button again to resume normal tape speed.
✱ 3,140 ± 10 Hz

5 BIAS OSC FREQUENCY
1. CrO2 type blank tape
2. TAPE-II, REC
3. P1004 ② pin, T1731
4. • Connect a frequency counter between P1004 pin and GND. (10 : 1 probe should be used to avoid affecting the measurement.)
• Start a recording (press the "REC" button then press the "▶" button).
The "AUX" source indicator appears automatically.
✱ 100.0 ± 0.2 kHz



5-2.CD PLAYER SECTION

TEST MODE FOR CD PLAYER'S OPERATION

Some adjustments of the CD PLAYER section are automatically carried out by the micro computer.

If the CD player section is defective and it is necessary to partially check the operation, "CD TEST" mode can be used while repairing.

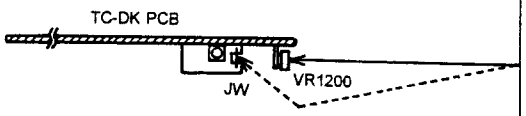
Engaging the "CD TEST" MODE

While pressing and holding both the "CD1" and "◀II(F)" buttons, plug in the AC power cord to the AC outlet.

Note :

- During "CD TEST" mode, only the DISC"1" ▲ open/close button can be used for loading. So, place a disc on "TRAY 1".
- Proceed testing by pressing the "CD1" button once for each testing step.
- To disengage the "CD TEST" mode, press the "POWER ON/STANDBY" button or disconnect the AC power cord from the AC outlet.

DISPLAY	FUNCTION
T0 (TEST-0)	Initial condition of the "CD TEST" mode.
T1 (TEST-1)	Perform "focus search".
T2 (TEST-2)	Turn on the "focus servo".
T3 (TEST-3)	Mode of the "E-F balance" adjustment.
T4 (TEST-4)	E-F balance adjustment is carried out automatically and its data value is displayed on the FLD.
T5 (TEST-5)	Mode of the "Tracking gain" adjustment.
T6 (TEST-6)	Tracking gain adjustment is carried out automatically and its data value is displayed on the FLD.
T7 (TEST-7)	Normal playback mode is engaged.



1	FOCUS OFFSET
1. Test disc (SONY TYPE-III)	
2. Play back	
3. JW and VR1200	
4. Connect the hot side probe of an AC milivoltmeter to JW on the BIAS OSC PCB and GND side probe to the chassis. Adjust the VR1200 on the TC-DK PCB until indication of the AC milivoltmeter is maximum.	

VI. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list the part No., Model No. and the description of each part. Otherwise, the nondelivery of the part or the delivery of a wrong part may result.
2. Please make sure that part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in parts list of preliminary service manual may have been the subject of changes, please use this parts list for all future reference.

[NOTE]

1. This parts list lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts list shows those parts in the parts list which are considered particularly important for service.
3. Parts not shown in the parts list and "Common List for Service Parts" will not in principle be supplied.

WARNING

⚠ (*) INDICATED SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVEERTISSEMENT

⚠ (*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

1. REMOTE P.C. BOARD

REF. NO.	PARTS No.	DESCRIPTION
CF001	007-300455-46	RESONATOR CRK455 455KHz
IC001	033-806122-13	REMOTE TRANSMITTER UPD6122G-001
LED001	130-670303-00	INFRA RED EMITINT DIODE EL-1L1
PCB	090-010302-03	REMOTE BOARD T=1.6mm 94HB (46X119mm)
Q001	031-278050-03	TRANSISTOR NPN KTC8050C
D001-004	030-134148-00H	D SILICON IN4148
	210-010301-01S	REMOTE BATTERY COVER

2. SYS CON P.C. BOARD

REF. NO.	PARTS No.	DESCRIPTION
D 3001/3002/3004-3015/3123/3124	030-320131-01H	D SILICON H 1SS131T T52
D 3080-3087/3102-3109/3111-3112		
D 3003/3016/3017/3110/3120 (for AC-720/723R/725K)	030-320131-01H	D SILICON H 1SS131T T52
D 3027/3028/3030/3131/3037/3038/	030-560034-10	D LED MYB34C YELLOW
D 3040/3041/3043/3044/3052/3053/		
D 3055/3056		
D 3026/3029/3026/3039/3042/3054/	030-540034-04	D LED MGB34D GREEN
D 3200-3211/3051		
D 3020/3024/3025/3032-3034/3045-3049	030-560031-00	D LED MYB31CA YELLOW
D 3021	030-510031-00	D LED MSB31TA RED
D 3050(for AC-720/723R/725K)	030-530031-04	D LED MGB31C GREEN
D 3113(S1/Y7)	030-320131-01H	D SILICON H 1SS131T T52
D 3114(for AC-525K/725K)	030-320131-01H	D SILICON H 1SS131T T52
D 3115(S1)	030-320131-01H	D SILICON H 1SS131T T52
D 3116(for AC-523R/723R)	030-320131-01H	D SILICON H 1SS131T T52
D 3117(for AC-525K/725K)	030-320131-01H	D SILICON H 1SS131T T52
D 3119(E1/B1/RE1/E3)	030-320131-01H	D SILICON H 1SS131T T52
D 3121(for AC-520/523R/525K)	030-320131-01H	D SILICON H 1SS131T T52
FR3301(for AC-720/723R/725K)	013-689105-82	R FUSE V S10 FR25 1/4W 6R8J
IC3001	034-B01101-02	IC M38197MA-174FP TX3-SYS75-1
IC3002	033-509121-29	IC PST-9121 T05
IC3003	033-002402-42	IC XL24C02P
IC3004	033-202011-14	IC TA2011S
IC3005-3007/3200	034-304094-18	IC BU4094BCF
IC3100	033-304094-18A	IC BU4094BC
IC3101(for AC-523R/723R)	034-106579-33	IC SAA6579T-T
IC3102(for AC-523R/723R)	034-307073-16	IC LC7073M
IC3300(for AC-720/723R/725K)	034-816312-13	IC UPD16312
IN3001	035-131065-00	IND FL SVA-16II05
IN3300(for AC720/723R/725K)	035-130519-00	IND FL SVA-05MS19
J 3401	061-121406-00	PHONE J HSJ1406-01-010 3.5
J 3402(for AC-525K/725K)	061-121406-00	PHONE J HSJ1406-01-010 3.5
J 3003	060-406123-99	SOCKET 00 6216 006 000 6P
J 3022	060-423124-99	SOCKET 00 6216 023 100 23P
J 3033/3906/3907	060-406123-99	SOCKET 00 6216 006 000 6P
P 3301(for AC-520/523R/525K)	060-103204-07	PLUG S3B-PH-K WHT 3P
P 3301A(for AC-720/723R/725K)	060-111204-07	PLUG S11B-PH-K WHT 11P
P 3011(for AC-510/513R/515K)	060-422124-99	PLUG TKC-V22P-A1 22P
P 3011A(for AC-710/713R/715K)	060-424124-99	PLUG TKC-V24P-A1 24P
PH3001	036-600446-01	DETECTOR SPS-446-1
SW3001	040-002410-20	SW ROTARY EC16B24304
SW3002	046-080001-00	SW PUSH VPS-800
TR3003-3005/3125/3126	031-440144-05V	DTR DTC144ES(47-47) T05
TR3101/3103/3113-3123	031-211048-25V	TR 2SA1048 Y,GR T05
TR3100/3102/3104-3106	031-234682-00V	TR 2SC4682T05
TR3111(for AC-523R/723R)	031-211048-25V	TR 2SA1048 Y,GR T05
TR3112(for AC-523R/723R)	031-440144-05V	DTR DTC144ES(47-47) T05
TR3121(for AC-720/723R/725K)	031-211048-25V	TR 2SA1048 Y,GR T05

TR3300-3301(for AC-720/723R/725K)	031-233576-00V	TR 2SC3576 T05
TR3302(for AC-720/723R/725K)	031-430114-05V	DTR DTA114ES(10-10) T05
TS3001-3004/3311-3028/3300/3301	046-110201-00	SW TACT 1.T-1102A 160GM
TS3005-3010(for AC-720/723R/725K)	046-110201-00	SW TACT 1.T-1102A 160GM
V3906/3907	060-615126-07	SOCKET 15FE-BT-VK-N 15P
VR3001	011-202298-00	VR ROTARY RK11K1140 L17.5 B202
VR3100/3102	112-222311-05	R S-FIX V T05EVNDCAA3 0.10W222
VR3101/3103	112-102311-05	R S-FIX V T05EVNDCAA3 0.10W102
W 3001(for AC-520/523R/525K)	063-552701-03	WA PH-SAN L270 3P
W 3001A(for AC-720/723R/725K)	063-552701-11	WA PH-SAN L270 11P
W 3007	077-622107-15	WF 2468#26 P2.0 C09 L100 15P
W 3008	077-622107-16	WF 2468#26 P2.0 C09 L100 16P
W 3011	077-622107-05	WF 2468#26 P2.0 C09 L100 5P
W 3013/3401	078-125021-00	WA EARTH LUG L-200
X 3001	007-208000-06	OSC CE CST8.00MTW 8.000MHZ
X 3002	037-032768-10M	OSC X'TAL C-002RX 32.768KHZ
X 3100(for AC-523R/723R)	007-204000-06	OSC CE CST4.00MGW 4.000MHZ
X 3101(for AC-523R/723R)	037-004332-10Z	OSC X'TAL HC-49/U-S 4.33200MHZ

3. MAIN P.C. BOARD

REF. NO.	PART No.	DESCRIPTION
D 001/010/022/024/042/044/046/083/	030-320131-01H	D SILICON H 1SS131T T52
D 121/123/124/141-143/155-156/		
D 175-176/221/724		
D 002/003(for AC-520/523R/525K)	⚠030-310040-02	D SILICON DBF40C 200/4.0A
D 002A/003A(for AC-720/723R/725K)	⚠030-310060-02	D SILICON DBF60C 200/6.0A
D 004/005/043/085/144	030-410051-20H	D ZENER MTZJ5.1B T52
D 006-009	⚠030-310152-06	D SILICON RL152M11S15 100/1.5A
D 021/023/081/151/152/158/171/172/178	030-314002-10H	D SILICON 1N4002-F T52 100/1A
D 231/232		
D 025/145/721-723	030-410062-10H	D ZENER MTZJ6.2A T52
D 041	030-410075-10H	D ZENER MTZJ7.5C T52
D 045	030-410015-03H	D ZENER MTZJ15B T52
D 063/066/751-753(for AC-520/523R/525K)	030-410062-10H	D ZENER MTZJ6.2A T52
D 063A/066A(for AC-720/723R/725K)	030-410075-10H	D ZENER MTZJ7.5C T52
D 084	030-410330-00H	D ZENER MTZJ33B T52
D 153/173	030-410030-10H	D ZENER MTZJ3.0A T52
D 154/174	030-410110-10H	D ZENER MTZJ11A T52
D 157/177	030-315401-00	D SILICON IN5401M24S15 3A/100V
D 224/771-772/775(for AC-720/723R/725K)	030-320131-01H	D SILICON H 1SS131T T52
D 531-533(for AC-725K)	030-320131-01H	D SILICON H 1SS131T T52
D 551-554(for AC-525K/725K)	030-320131-01H	D SILICON H 1SS131T T52
F1(for AC-520/523R/525K)	⚠ 082-222000-06	FUSE TIME 218 250V 2.00A
F2(for AC-525K)	⚠ 082-222000-06	FUSE TIME 218 250V 2.00A
F1(for AC-720/723R/725K)	⚠ 082-222500-06	FUSE TIME 218 250V 2.50A
F2(for AC-725K)	⚠ 082-222500-06	FUSE TIME 218 250V 2.50A
IC 021	033-507805-00B	IC ML7805FA 5V/1A
IC 101/801	033-304094-18A	IC BU4094BC
IC 201(for AC-520/523R/525K)	033-204201-16	IC STK4201-2
IC 201A(for AC-720/723R/725K)	033-204221-16	IC STK4221-2
IC 501(for AC-525K/720/723R/725K)	033-K65843-12	IC M65843AFP
IC 581	033-904558-30A	IC NJM4558L
IC 602(for AC-720/723R/725K)	034-K02177-74	IC NJM2177AFB3
IC 701	034-262422-12	IC M62422FP
IC 731	033-203835-18	IC BA3835S
IC 751/761(for AC-720/723R/725K)	033-209412-14	IC TC9412P
IC 761A(for AC-520/523R/525K)	033-009260-14	IC TC9260P
IC 771(for AC-720/723R/725K)	033-904558-30A	IC NJM4558L
IC 802(for AC720/723R/725K)	033-304094-18A	IC BU4094BC
J 011(for AC520/523R/525K)	060-422122-99	SOCKET TKC-V22X-A1 22P

J 011A(for AC-720/723R/725K)	060-424122-99	SOCKET TKC-V24X-A1 24P
J 201(for AC-520/523R/525K)	061-122000-00	PHONE J HSJ2000-01-010 3.5
J 201A(for AC-720/723R/725K)	061-123000-00	PHONE J HSJ3000-01-010 3.5
L 201/251	004-285103-08	COIL FIX2 202AK018A COILS 2R2K
L 281(E1/B1/RE1/E3/A3)	084-070410-00	COIL BALUM OPW/5-8-14-5H2
L 801	002-300002-09	COIL LF LF-4D-102 102UH
P 006	060-112204-07	PLUG S12B-PH-K WHT 12P
P 012	060-102045-20	PLUG B2P-3-VH P7.92 2P
P 013/902	060-405001-17	PLUG RTB-1.5-5P 5P
P 014	060-104205-27	PLUG B4B-PH-K WHT 4P
P 015(for AC-720/723R/725K)	060-403001-17	PLUG RTB-1.5-3P 3P
R 004-005/043	⚠ 013-478205-75	R OMF H S10FLR ERG12SP1/2WR47J
R 047-048	⚠ 013-221205-75	R OMF H S10FLR ERG12SP1/2W221J
R 081	⚠ 013-478205-75	R OMF H S10FLR ERG12SP1/2W47J
R 021/103/106/109/112	⚠ 013-109205-75	R OMF H S10FLR ERG12SP1/2W1R0J
R 153/173	⚠ 013-122305-75	R OMF H S12 FLR ERG1SP 1W 122J
R 209/259/283/210/260	⚠ 013-100305-75	R OMF H S12 FLR ERG1SP 1W 100J
R 212/262	013-108410-51	R CT P F09 PLATE 2W R10K
RL 001-002	⚠ 006-110212-04	RELAY POW OSA-SS 212DM5 TV-3
TM 201	061-780401-00	TERMINAL PUSH CJ-9007-060 4P
TR 022/024//026/043	031-440114-05V	DTR DTC114ES(10-10) T05
TR 023/281	031-221443-00V	TR 2SB1443 TV2
TR 025	031-220621-00V	TR 2SB621 R,S T05
TR 044/081	031-221375-00	TR 2SB1375
TR 045/201-203/251-253	031-232458-25V	TR 2SC2458 Y,GR T05
TR 046	031-242012-00	TR 2SD2012
TR 021/041/082/101-104/141	031-211048-25V	TR 2SA1048 Y,GR T05
TR 121-124	031-440114-60V	DTR DTC114TS(10) T05
TR 151	031-590175-00	TR FET 2SJ175
TR 152-172	031-232459-57V	TR 2SC2459 GR,BL T05
TR 171	031-251093-00	TR FET 2SK1093
TR 221	031-430114-05V	DTR DTA114ES(10-10) T05
TR 222(only for AC-720)	031-430114-05V	DTR DTA114ES(10-10) T05
TR 285	031-440144-05V	DTR DTC144ES(47-47) T05
TR 531(for AC-725K)	031-430114-19V	DTR DTA114TS(10) T05
TR 532-533/535-536/539-541 (for AC-725K)	031-440144-60	DTR DTC144TS(47) T05
TR 534/537-538(for AC-725K)	031-440114-60V	DTR DTC114TS(10) T05
TR 551-552(for AC-525K/725K)	031-440114-60V	DTR DTC114TS(10) T05
TR 601-602(for AC-720/723R/725K)	031-430114-19V	DTR DTA114TS(10) T05
TR 603-604(for AC-720/723R/725K)	031-440114-60V	DTR DTC114TS(10) T05
W 014	063-552301-04	WA SAN-PH #24 L230 4P
W 302(for AC-720/723R/725K)	063-555501-07	WA SAN-PH L550 7P
W 801(for AC-525K/725K)	063-502401-11	WA SDN L200 6P
X 501(for AC-720/723R/725K)	007-002000-40	OSC CE CSA2.00MG 2.000MHZ
X 551(for AC-525K/725K)	007-200400-03	OSC CE DCRK400 400.000KHZ

4. TC-DK P.C. BOARD

REF. NO.	PARTS No.	DESCRIPTION
D 1300-1304	030-314002-10H	D SILICON 1N4002-F T52 100/1A
D 1400/1401/1721	030-320131-01H	D SILICON H 1SS131T T52
D 1501	030-410051-10H	D ZENER MTZJ5.1A T52
FL1611/1621/1661/1671	007-100100-09	COIL TUN 1 100Z-121 100.00KHZ
IC1001/1602	033-314052-21	IC MC14052BCP
IC1002	033-904558-30A	IC NJM4558L
IC1003(only for AC-720-723R/725K)	033-314053-21	ICMC14053BCP
IC1100	033-601782-64Q	IC CXA1782BQ
IC1200	033-K02508-64	IC CXD2508AQ
IC1210	033-904558-30A	IC NJM4558L

IC1300	033-209258-61	IC KA9258D
IC1400	033-206247-18	IC BA6247
IC1601	034-101897-64	IC CXA1897Q
IC1701/1702	034-304094-18	IC BU4094BCF
J 1001(for AC-520)	061-782441-00	PIN J HSP-244V1-05 2P
J 1001A(for AC-720)	061-472461-00	PIN J HSP-246V1-05 6P
J 1002	060-423123-99	SOCKET 00 6216 023 000 23P
J 1100	060-416109-99	SOCKET 00 6232 016 006 16P
L 1501(S1/U5/U8/Y6/Y7)	005-229056-01H	COIL FIX 1 LAP02TA T26 2R2J
L 1721	005-101056-00H	COIL FIX 1 LAP02TA T26 101J
P 1004	060-108205-27	PLUG B8B-PH-K WHT 8P
P 1005	060-103205-27	PLUG B3B-PH-K WHT 3P
P 1200	036-400032-01	SOCKET OPTICAL GP1F32T
P 1400	060-105204-27	PLUG S5B-PH-K WHT 5P
P 1401	060-107204-29	PLUG S7B-PH-K WHT 7P
P 1402	060-106206-27	PLUG S6B-PH-K WHT 6P
T 1731	002-800002-09	COIL OSC 1 C1047
TM1501	061-480312-00	TERMINAL LEVER HSP-312V-02
TR1100/1400/1102/1743	031-211048-25V	TR 2SA1048 Y,GR T05
TR1300/1301	031-221443-00V	TR 2SB1443 S,E T05
TR1302/1601/1621/1651/1671/1741 TR/1721/1742/1751/1752/1756	031-440114-05V	DTR DTC114ES(10-10) T05
TR1401/1501/1611/1612/1661-1662/1701	031-232458-25V	TR 2SC2458 Y,GR T05
TR1502(for AC-523R/723R)	031-250304-06V	TR FET 2SK304 E,F T05
TR1613/1663	031-241012-06V	TR 2SD1012-V-SPA-AC F,G,H T05
TR1010/1060/1101/1631/1635/1642/1681 TR1685/1692	031-440114-60V	DTR DTC114TS(10) T05
TR1641/1643/1691/1693 (for AC-720/723R/725K)	031-440114-60V	DTR DTC114TS(10) T05
TR1702/1722(for AC-725K)	031-430114-05V	DTR DTA114TS(10-10) T05
TR1723-1725	031-231815-26V	TR 2SC1815 Y,GR T05
TR1726(E1/B1/RE1/E3)	031-211048-25V	TR 2SA1048 Y,GR T05
TR1731-1732(E1/B1/RE1/E3)	031-232458-25V	TR 2SC2458 Y,GR T05
TU1501(E1/E2/B1/RE1/E3)	103-146601-04	TUNER TFCB3E720A FM/MW/LW
TU1501A(S1/U5/U8/Y6)	103-146401-04	TUNER TFCB1U717A FM/AM
TU1501B(Y7)	103-146101-04	TUNER TFCB1S713A FM/MW/SW
VR1200	112-103311-05	R S-FIX V T05EVNDCAA3 0.10W103
W900	077-955168-16	CORD FFC BD L150 16P
W 1006	063-B01001-12	WA PH L100 12P
W 1400/1401	077-322087-09	WF 2468#26 P2.0 C09 L80 9P
W1500	072-122008-50	WD 1007# 22 CO 180
X 1200	037-169344-30J	OSC X'TAL HC-49/U16934.400MHz

5. POWER-SUB P. C. BOARD (AC-720/723R/725K only)

REF NO.	PARTS NO	DESCTIPTION
D 2001	030-310040-02	D SILICON DBF40C 200/4.0A
D 2002-2005	030-314002-10H	D SILICON 1N4002-F T52 100/1A
IC2301	033-404142-16	IC STK4142-2
J 2301	061-780243-00	PIN J HSP-243V-06 3P
L 2301/2351	004-285103-08	COIL FIX2 202AK018A COILS 2R2K
L 2381(only AC-720/723R)	084-070410-00	COIL BALUM OPW 15-8-14-5H2
P 2301	060-404001-17	PLUG RTB-1.5-4P 4P
P 2302	060-107205-27	PLUG B7B-PH-K WHT 7P
R 2309/2359/2310/2360	013-100305-75	R OMF H S12 FLR ERG1SP 1W 100J
R 2312/2362	013-108410-51	R CT P F09 PLATE 2W R10K
TR2301-2303/2351-2353	031-232458-25V	TR 2SC2458 Y,GR T05
F5	⚠ 082-223150-06	FUSE TIME 218 250V 3.15A
F6	⚠ 082-223150-06	FUSE TIME 218 250V 3.15A

6. P.C. BOARD BLOCK

REF. NO.	PARTS No.	DESCRIPTION
1-a(AC-520/523R)	771-AC52001-01	MAIN P.C. BOARD
1-b(AC-525)	771-AC52001-45	MAIN P.C. BOARD
1-c(AC-520/523R)	771-AC52001-02	PRI. P.C. BOARD
1-d(AC-525K)	771-AC52001-46	PRI. P.C. BOARD
1-e(AC-525/523R/525K)	771-AC52001-03	SEC. P.C. BOARD
2-a(AC-520 B1/E1/E3)	771-AC52001-04	TC-TU/CD/DK P.C. BOARD
2-b((AC-520/525K)	771-AC52001-26	TC-TU/CD/DK P.C. BOARD
2-c(AC-523R)	771-AC52001-37	TC-TU/CD/DK P.C. BOARD
2-d(AC-525K Y7)	771-AC52001-81	TC-TU/CD/DK P.C. BOARD
2-e((AC-520/523R)	771-AC52001-05	TC-OSC P.C. BOARD
2-f(AC-520/525K)	771-AC52001-27	TC-OSC P.C. BOARD
2-g(AC-520/523R/525K)	771-AC52001-06	TC-RELAY P.C. BOARD
3-a(AC-520/523R/525K)	771-AC52001-07	SYS-SYS FLD P.C. BOARD
3-b(AC-520 B1/E1/E3)	771-AC52001-08	SYS-MECH CON P.C. BOARD
3-c(AC-520 S1)	771-AC52001-30	SYS-MECH CON P.C. BOARD
3-d(AC-523R)	771-AC52001-41	SYS-MECH CON P.C. BOARD
3-e(AC-525K U5/U8/Y6)	771-AC52001-52	SYS-MECH CON P.C BOARD
3-f(AC-525K Y7)	771-AC52001-85	SYS-SYS FLD P.C. BOARD
3-g(AC-520/523R/525K)	771-AC52001-09	SYS-DECK LED P.C. BOARD
3-h(AC-520/523R/525K)	771-AC52001-10	SYS-CDOPE P.C. BOARD
3-i(AC-520/523R)	771-AC52001-11	SYS-MIC JACK P.C. BOARD
3-j(AC-525K)	771-AC52001-55	SYS-MIC JACK P.C BOARD
4a(AC-520)	790-010301-01	REMOTE P.C. BOARD
4b(AC-720)	790-010302-01	REMOTE P.C. BOARD
5-a(AC-720/723R)	771-AC72001-01	MAIN P.C. BOARD
5-b(AC-725K)	771-AC72001-47	MAIN P.C. BOARD
5-c(AC-720/723R)	771-AC72001-02	PRI. P.C. BOARD
5-d(AC-725K)	771-AC72001-48	PRI. P.C. BOARD
5-e(AC-720/723R/725K)	771-AC72001-03	SEC. P.C. BOARD
6-a(AC-720 B1/E1/E3)	771-AC72001-04	TC-TU/CD/DK P.C. BOARD
6-b((AC-720 S1 AC-725K U5/U8/Y6/Y7)	771-AC72001-28	TC-TU/CD/DK P.C. BOARD
6-c(AC-725K Y7)	771-AC72001-83	TC-TU/CD/DK P.C. BOARD
6-d(AC-720/723R)	771-AC72001-05	TC-OSC P.C. BOARD
6-e(AC-720/725K)	771-AC72001-29	TC-OSC P.C. BOARD
6-f (AC-720/723R/725K)	771-AC72001-06	TC-RELAY P.C. BOARD
7-a(AC-720/723R/725K)	771-AC72001-07	SYS-SYS LED P.C. BOARD
7-b(AC-720 B1/E1/E3)	771-AC72001-08	SYS-MECH CON P.C. BOARD
7-c(AC-720 S1)	771-AC72001-32	SYS-MECH CON P.C. BOARD
7-d(AC-723R)	771-AC72001-43	SYS-MECH CON P.C. BOARD
7-e(AC-725K U5/U8/Y6)	771-AC72001-54	SYS-MECH CON P.C. BOARD
7-f(AC-720/723R/725K)	771-AC72001-09	SYS-DECK LED P.C. BOARD
7-g(AC-720/723R/725K)	771-AC72001-10	SYS-CDOPE P.C. BOARD
7-h(AC-720/723R)	771-AC72001-11	SYS-MIC JACK P.C. BOARD
7-i(AC-725K)	771-AC72001-57	SYS-MIC JACK P.C. BOARD
8-a(AC-720/723R)	771-AC72001-12	PO SU 720A P.C. BOARD
8-b(AC-725K)	771-AC72001-09	PO SU 720A P.C. BOARD
8-c(AC-720/723R/725K)	771-AC72001-13	PO SU 720B P.C. BOARD

7. YMCO3 P . C . BOARD

REF . NO .	PART NO .	DESCRIPTION
D4410	030-600048-00	D LED GL4800
TR4410	031-594800-00	TR PHOTO PT4800
J4410	060-405124-99	SOCKET 006216005100 5P
J4411	060-405123-99	SOCKET 006216005000 5P
W4410	077-622077-02	WF2468 #26 P 2.0 CO9LO72P
W4412	063-555301-05	WA SAN-PHL530 5P

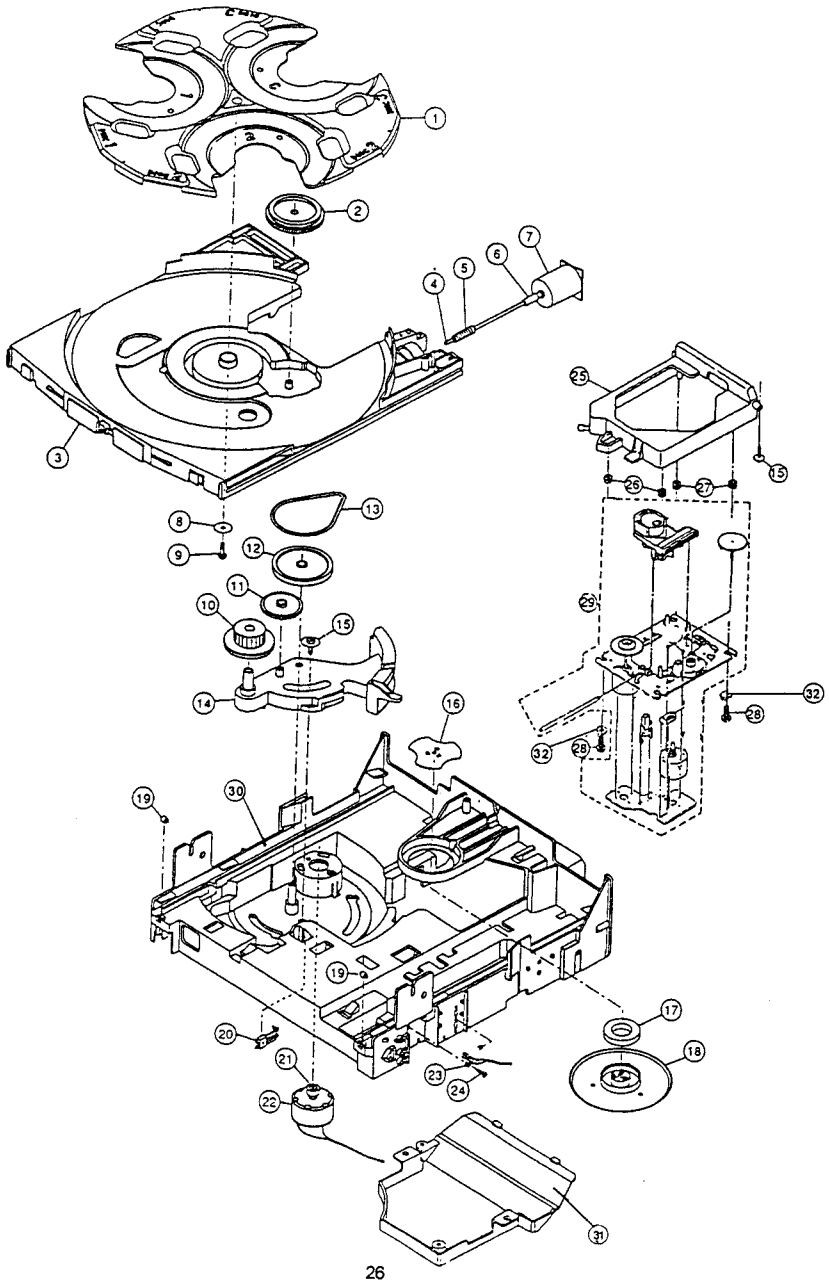
8. ACCESSARY

REF. NO.	PART No.	DESCRIPTION
1	790-010302-01	REMOCON RC-S520
2	790-010302-02	REMOCON RC-S720

9. CD MECHANISM

REF. NO.	PARTS NO.	DESCRIPTION
1	229-385602-01S	HOLDERDISC
2	288-385601-01Z	GEAR WORMWHEEL TABLE
3	220-385602-01S	TRAY LOADING
4	438-385601-01	SHAFT
5	288-385604-01Z	WORM
6	239-385601-01Z	JOINT
7	743-037012-54	MOTOR PF-370CA-15370 12V
8	634-150030-08	PW30X150X080 THK
9	619-300208-00	TAPING SCREW 3X1.25X8mm
10	288-385605-01Z	GEAR LOADING (A)
11	288-385606-01Z	GEAR LOADING(B)
12	288-385602-01Z	PULLEY GEAR
13	334-385604-01	BELT LOADING
14	288-385603-01S	HOLDER GEAR
15	615-300308-00	BW/T 3X8mm
16	428-385603-01	PLATE CLAMPER
17	489-383801-01	MAGNET DISC CLAMP
18	229-385606-01S	CLAMPER
19	259-385602-01Z	ROLLER
20	047-102127-00	LEAF SWITCH LSA-2127E
21	243-385601-01Z	PULLEY
22	743-050009-54	MOTOR RF-500TB-14415 D/V
23	047-101119-01	LEAF SWITCH ISA-1119H
24	610-260208-10	R/T 2.6X8mm
25	220-385601-01S	HOLDER TRAVERSE
26	334-385606-01	INSULATOR
27	334-385606-01	INSULATOR
28	610-200216-00	SELF-SCREW TAPING B/T 2.0X16
29	747-021301-02	MECHA TRAVERSE KSM213CCM
30	220-385603-01R	CHASSIS MAIN
31	219-385601-01Z	CD MECH COVER
32	634-100027-05	METAL WASHER 10X2.7X0.5

CD MECHANISM BLOCK



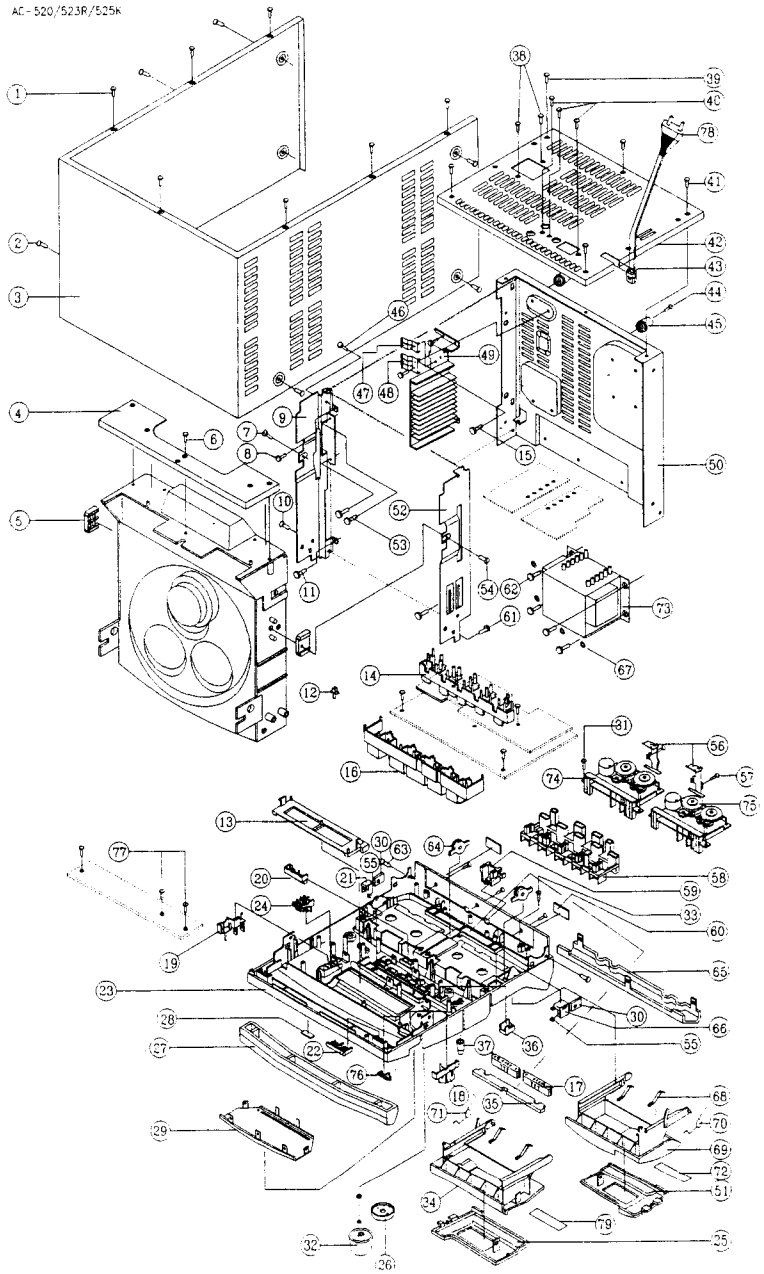
10. AC-520/523R/525K

REF. NO.	PARTS NO.	DESCRIPTION
1	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
2	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
3	402-385002-02	MAIN COVER SILVER
4	495-385027-01	REAR CABINET SUB
5	284-385001-01R	MECH SPACER BLACK HI-PS
6	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
7	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
8	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
9	428-385001-01	CD BRACKET ' L '
10	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
11	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
12	292-AA0302-01S	DOLBY BUTON
13	229-385011-01R	FLD BRACKET HI-PS
14	291-AA0302-01S	FUNCTION BUTTON ABS
15	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
16	291-AA0306-01Z	OP BUTTON (AC-420)
17	250-AA0301-01S	LAMP HOLDER WHITE ABS
18	292-AA0301-01S	REC BUTTON RED (P-96014) ABS
19	291-AA0501-01S	CH BUTTON DARK GREY (P-92008) ABS
20	291-AA0305-01S	POWER BUTTON DARK GREY (P-92008) W/MET GREY(T-96008HB) SP. SILK'S RED(S-88011) LETT. ABS
21	229-AA0314-01Z	LATCH BRACKET (L) POM
22	291-AA0301-01S	DISC BUTTON DARK GREY
23-a(AC-520)	200-AA0311-03R	FRONT CABINET HI-PS
23-b(AC-523R)	200-AA0311-04R	FRONT CABINET HI-PS
23-c(AC-525K)	200-AA0312-02R	FRONT CABINET HI-PS
24	275-AA0301-01S	TIMER BUTTON DARK GREY (P-92008) ABS
25	261-AA0301-01K	CASS DOOR LENS (L) SMOKE
26	273-AA0302-01S	VOLUME RING DARK GREY (P-92008) W/PLATTING ABS
27	219-AA0311-01R	CD DOOR HI-PS
28	286-385001-02S	NAME PLATE ' AKAI '
29	263-AA0301-02K	DISPLAY LENS AS
30	229-385016-01Z	LATCH BRACKET BLACK POM
31	619-300210-00	TAPPING SCREW P TYPE BID H 3X10MM BLACK
32	273-AA0301-01S	VOLUME KNOB ABS
33	619-300210-00	TAPING SCREW P TYPE BID H 3X10MM BLACK
34	211-AA0301-01S	CASS DOOR (L) HI-PS
35	418-AA0301-01	OVERLAY CLEAR SILK'S WHITE(S-96001) COLOR PVC
36	291-AA0304-01S	BASS BUTTON MILKY WHITE (CL-301) ABS
37	273-AA0303-01S	MIC KNOB DARK GRAY ABS
38	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
39	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
40	614-300208-00	SELF-TAPPING SCREW B/T 3X8MM BLACK
41	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
42-a(AC-520 E/B)	495-AA0301-04	PANEL REAR
42-b(AC-520 S)	495-AA0301-05	PANEL REAR
42c(AC-523R(E))	495-AA0301-06	PANEL REAR
42-d(AC-525K U5,Y6)	495-AA0302-03	PANEL REAR
42-e(AC-525K U8,Y7)	495-AA0302-04	PANEL REAR
43	650-381301-01	CORD BUSHING
44	619-300408-00	TAPING SCREW B/T WASHER 3X8MM BLACK
45	207-385101-01Z	REAR FOOT (PLASTIC) BLACK EVA
46	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK

47	428-385003-01	HOLDER BRACKET SECC-E20 T=1
48	428-385101-01	HOLDER BRACKET (H)
49	481-385111-01	HEAT SINK H-2
50	493-385112-01	METAL BOTTOM CABINET (H) 1MM
51	261-AA0302-01K	CASS DOOR LENS (R) SMOKE
52	428-385002-01	CD BRACKET 'R'
53	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
54	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
55	477-385011-01	LATCH PUSH SPRING
56	483-AA0301-01	SHIELD HEAD
57	604-264501-00A	TAPPING SCREW C TYPE BID 2.6X5MM
58	229-AA0312-01S	LID BRACKET TX-3 WHITE ABS
59	229-AA0303-01S	BRACKET BLACK ABS
60	330-385001-01	FRONT CUSHION FOOT
61	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
62	602-407008-60A	TAPPING SCREW P TYPE WASHER H 4X8MM
63	619-300212-00	TAPPING SCREW P TYPE BID H 3X12MM
64	703-385002-01	DAMPER DA-60W/W (105) ASSEMBLY
65	263-AA0303-01K	DECK DIR LENS AS
66	229-AA0315-01Z	LATCH BRACKET (R) POM
67	663-076040-10S	SPRING WASHER 7.6X4X1MM THK SIL CMT
68	470-AA0321-01	CASS DOOR SPRING SHEET
69	211-AA0302-01S	CASS DOOR (R) HI-PS
70	471-AA0302-01	CASS DOOR SPRING WIRE (R)
71	471-AA0301-01	CASS DOOR SPRING WIRE (L)
72	211-AA0502-02S	CASS DOOR PALTE (R)-B BLACK
73-a(AC-510/513R)	001-863851-42	⚠ POWER TRANSFORMER C1048E
73-b(AC-515K)	001-863851-02	⚠ POWER TRANSFORMER C1048-U
74	741-495300-09	LOGICAL CONTROL DECK MECHA GT-E5300 (P/B)
75	471-495600-09	LOGICAL CONTROL DECK MECHA GT-E5600 (R/P)
76.	291-AA0303-01S	BALANCE BUTTON BLACK ABS
77	619-300210-00	TAPINET SCREW P TYPE BID H 3X10MM BLACK
78-a(except B1,Y6,S1)	071-669078-00A	⚠ AC LINE CORD VDE
78-b(B1,Y6)	071-449078-20	⚠ AC LINE CORD BS
78-c(S1)	071-559078-10	⚠ AC LINE CORD SAA
79	211-AA0501-02S	CASS DOOR PLATE (L) SILVER

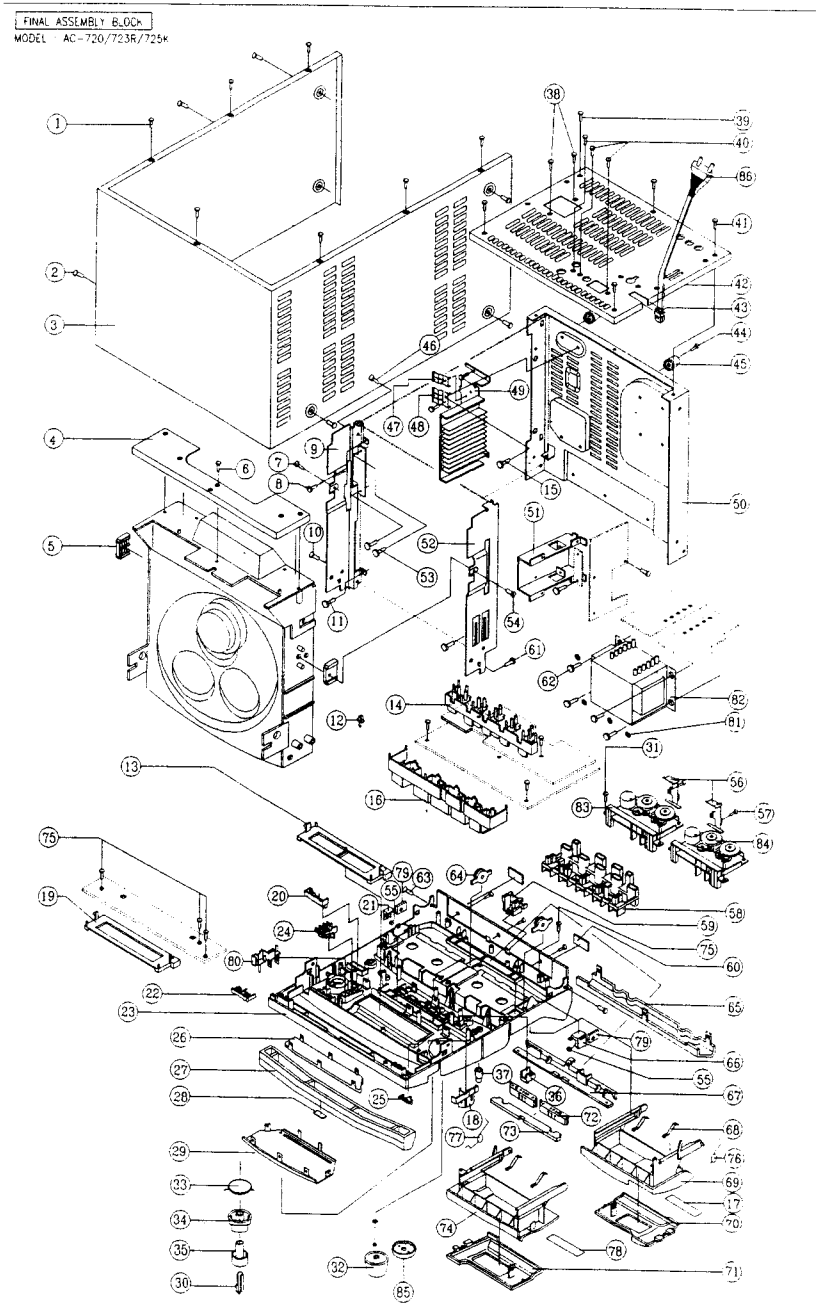
FINAL ASSEMBLY BLOCK

MODEL AC-520/523R/525K

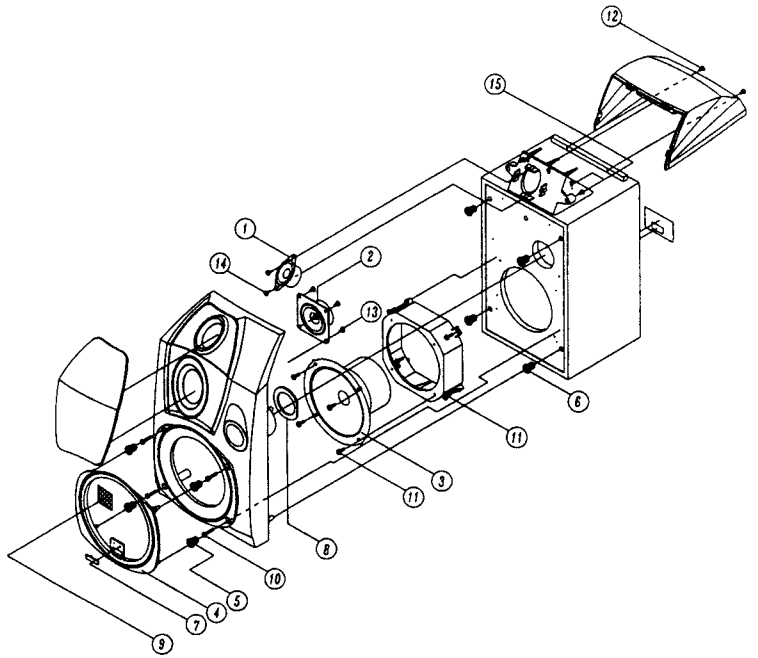


11. AC-720/723R/725K

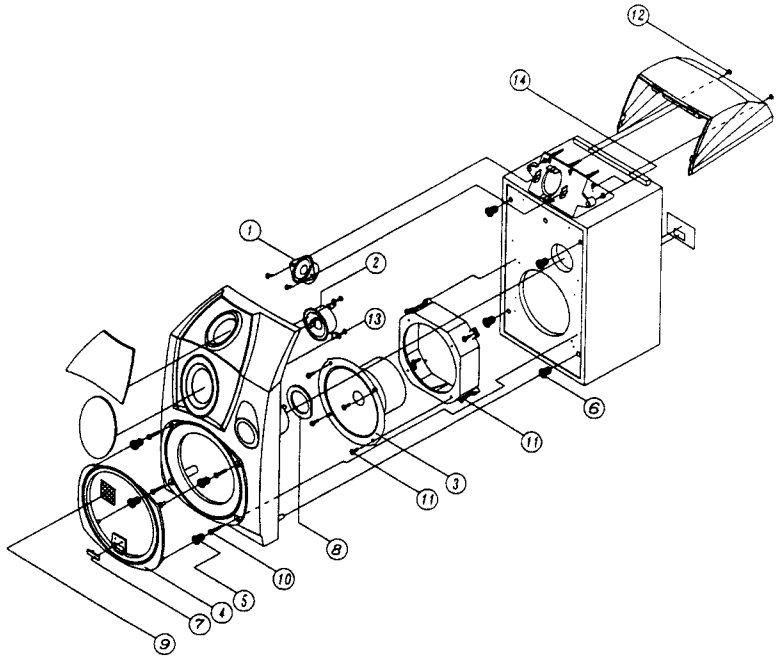
REF. NO.	PARTS NO.	DESCRIPTION
1	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
2	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
3	402-385002-02	MAIN COVER SILVER
4	495-385027-01	REAR CABINET SUB
5	284-385001-01R	MECH SPACER BLACK HI-PS
6	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
7	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
8	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
9	428-385001-01	CD BRACKET 'L'
10	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
11	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
12	292-AA0302-01S	DOLBY BUTTON
13	229-385121-01R	FLD BRACKET HI-PS
14	291-AA0302-01S	FUNCTION BUTTON ABS
15	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
16	291-AA0306-01Z	OP BUTTON (AC-620)
17	211-AA0502-01S	CASS DOOR PLATE (R) SILVER
18	292-AA0301-01S	REC BUTTON RED (P-96014) ABS
19	229-AA0501-01S	PRO LED BRACKET WHITE
20	291-AA0305-01S	POWER BUTTON DARK GREY (P-92008) W/MET GREY(T-96008HB) SP SILK'S RED(S-88011) LETT. ABS
21	229-AA0314-01Z	LATCH BRACKET (L) POM
22	291-AA0301-01S	DISC BUTTON DARK GREY
23-a(AC-720)	200-AA0511-01R	FRONT CABINET HI-PS
23-b(AC-723R)	200-AA0511-02R	FRONT CABINET HI-PS
23-c(AC-725K)	200-AA0512-01R	FRONT CABINET HI-PS
24	275-AA0301-01S	TIMER BUTTON DARK GREY ABS
25	291-AA0303-01S	BALANCE BUTTON BLACK ABS
26	263-AA0501-01K	PRO DISPLAY LENS WINE SMOKE 'P-95012' AS
27	219-AA0311-01R	CD DOOR HI-PS
28	286-385001-02S	NAME PLATE 'AKAI'
29	263-AA0301-01K	DISPLAY LENS AS
30	262-AA0601-01S	PRO BUTTON LEN SABS
31	619-300210-00	TAPPING SCREW P TYPE BID H 3X10MM BLACK
32	273-AA0301-01S	VOLUME KNOB ABS
33	477-385211-01	PRO TORSION SPRING
34	292-AA0601-01S	PRO LOGIC KNOB BLACK ABS
35	292-AA0501-01S	ON/OFF BUTTON MILKY WHITE 'SAA' - 5409T'
36	291-AA0304-01S	BASS BUTTON MILKY WHITE (CL-301) ABS
37	273-AA0303-01S	MIC KNOB BLACK ABS
38	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
39	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
40	614-300208-00	SELF-TAPPING SCREW B/T 3X8MM BLACK
41	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX3MM
42-a(AC-720 E/B)	495-AA0303-01	PANEL REAR
42-b(AC-720 S)	495-AA0303-02	PANEL REAR
42-c(AC-723R(E))	495-AA0303-03	PANEL REAR
42-d(AC-725K U5,Y6)	495-AA0304-01	PANEL REAR
42-e(AC-725K U8,Y7)	495-385004-02	PANEL REAR
43	650-381301-01	CORD BUSHING
44	619-300408-00	TAPING SCREW BT WASHER H 3X8MM BLACK
45	207-385101-01Z	REAR FOOT (PLASTIC) BLACK EVA
46	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
47	428-385003-01	HOLDER BRACKET SECC-E20 T=1
48	428-385101-01	HOLDER BRACKET (H)
49	481-385111-01	HEAT SINK (H)
50	493-385112-01	METAL BOTTOM CAB (H) 1MM
51	481-385201-01	HEAT SINK (SUB)
52	428-385002-01	CD BRACKET ' R'
53	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
54	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
55	477-385011-01	LATCH PUSH SPRING
56	483-AA0301-01	SHIELD HEAD
57	604-264501-00A	TAPPING SCREW C TYPE BID H 2.6X5MM
58	299-AA0312-01S	LID BRACKET TX-3 WHITE ABS
59	229-AA0303-01S	LID BRACKET BLACK ABS
60	330-385001-01	FRONT CUSHION FOOT
61	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
62	602-407008-60A	TAPPING SCREW P TYPE WASHER H 4X8MM
63	619-300212-00	TAPING SCREW P TYPE BID H 3X12MM BLACK
64	703-385002-01	DAMPER DA-60W/W (105) ASSEMBLY
65	263-AA0303-01K	DECK DIR LENS AS
66	229-AA0315-01Z	LATCH BRACKET (R) POM
67	263-AA0303-01K	DECK DIR BKT BLACK ABS
68	470-AA0321-01	CASS DOOR SPRING SHEET
69	211-AA0302-01S	CASS DOOR (R) HI-PS
70	261-AA0302-01K	CASS DOOR LENS (R) SMOKE
71	261-AA0301-01K	CASS DOOR LENS (L) SMOKE
72	250-AA0301-01S	LAMP HOLDER WHITE ABS
73	418-AA0301-01	OVERLAY CLEAR SILK'S WHITE(S-96001) COLOR PVC
74	211-AA0301-01S	CASS DOOR (L) HI-PS
75	619-300210-00	TAPING SCREW P TYPE BID H 3X10MM BLACK
76	471-AA0302-01	CASS DOOR SPRING WIRE (R)
77	471-AA0301-01	CASS DOOR SPRING WIRE (L)
78	211-AA0501-01S	CASS DOOR PLATE (L) SILVER
79	229-385016-01Z	LATCH BRACKET BLACK POM
80	291-AA0501-01S	CH BUTTON DARK GRAY (P-92008) ABS
81	663-076040-10S	SPRING WASHER 7.6X4X1MM THK SIL CMT
82-a(AC-720/723R)	001-953852-42	⚠ POWER TRANSFORMER C1049-E
82-b(AC-725K)	001-953852-02	⚠ POWER TRANSFORMER C1049-U
83	741-495300-09	LOGICAL CONTROL DECK MECHA GT-E5300 (P/B)
84	741-495600-09	LOGICAL CONTROL DECK MECHA GT-E5600 (R/P)
85	273-AA0302-01S	VOLUME RING DARK GREY (P-92008) W/PLATTING ABS
86-a(except B1,Y6,S1)	071-669078-00A	⚠ AC LINE CORD VDE
86-b(B1,Y6)	071-449078-20	⚠ AC LINE CORD BS
86-c(S1)	071-559078-10	⚠ AC LINE CORD SAA



12. SPEAKER SYSTEM (SR-525)



REF. NO	PART NO	DESCRIPTION
1	066-278220-KP	SPEAKER 2" 12Ω 40-120W
2	066-278221-WTZ	SPEAKER 2 1/2" 8Ω 40-120W
3	066-958254-STZ	SPEAKER 2 1/2" 8Ω 80-120W
4	239-051701-01R	ADAPTOR HI-PS
5	259-050201-01Z	CUSHION FOR SPEAKER BOX BLK S.B.R
6	259-381301-01	CUSHION FOR SPEAKER BOX BLK RUBBER
7	286-385002-02S	NAME PLATE FOR AKAI SPK BLK ABS
8	323-051601-01	SPONG SPACER
9	583-051601-01F	CLOTH NET
10	610-350220-10	SELF-TAPPING SCREW R/T 3.5X20MM WHITE
11	610-400216-30	SELF-TAPPING SCREW R/T 4.0X16MM WHITE
12	610-300214-30	SELF-TAPPING SCREW R/T 3.0X14MM WHITE
13	612-300206-10	SELF-TAPPING SCREW 3X6MM WHITE
14	612-300208-10	SELF-TAPPING SCREW 3X8MM WHITE
15	612-300214-10	SELF-TAPPING SCREW 3X14MM WHITE

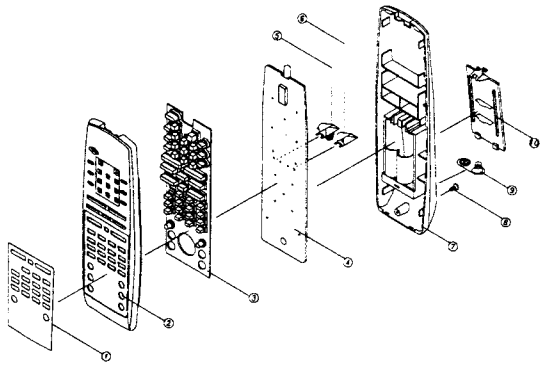


REF. NO	PART NO	DESCRIPTION
1	066-288220-KP	TWEETER 50MM
2	066-288221-KP	MIDRANGE SPEAKER 65MM
3	066-959054-STZ	WOOFER SPEAKER 135MM
4	239-051701-01R	ADAPTOR HI-PS
5	259-050201-01Z	CUSHION FOR SPEAKER BOX BLK S.B.R
6	259-381301-01	CUSHION FOR SPEAKER BOX BLK RUBBER
7	286-385002-02S	NAME PLATE FOR AKAI SPK BLK ABS
8	323-051601-01	SPONG SPACER
9	583-051601-01F	CLOTH NET
10	610-350220-10	SELF-TAPPING SCREW R/T 3.5X20MM WHITE
11	610-400216-30	SELF-TAPPING SCREW R/T 4.0X16MM WHITE
12	610-300210-10	SELF-TAPPING SCREW R/T 3.0X10MM WHITE
13	612-300208-10	SELF-TAPPING SCREW 3X8MM WHITE
14	612-300210-10	SELF-TAPPING SCREW 3X10MM WHITE

14. REMOTE EXPLODED DIAGRAM AND PARTS LIST

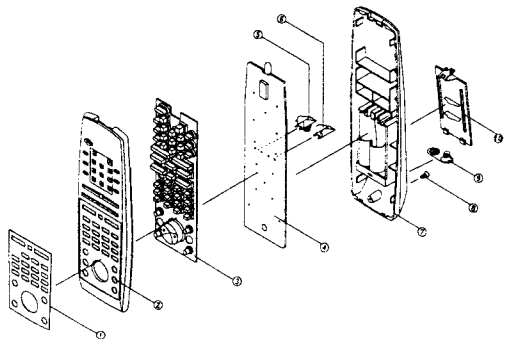
RC-S520

REF. NO	PART NO	DESCRIPTION
*	790-010301-01	REMOTE CONTROL HANDSET RC-S520
1	411-010301-01	REMOTE NAME PLATE
2	201-010302-01S	REMOTE CAB TOP
3	334-010311-01	REMOTE CONTATIVE RUBBER (46 KEYS)
4	090-010302-03	PCB REMOTE BOARD
5	473-010311-01	BATT CONTACT SPRING SHEET-VE
6	472-010311-01	BAT CONTACT PLATE +VE
7	203-010311-01S	REMOTE CABINET BOTTOM
8	610-260206-10	SELF-TAPPING SCREW K/T 2.6X6
9	474-010101-01	BAT CONTACT SPRING WIRE +/-VE
10	210-010301-01S	REMOTE BATTERY COVER



RC-S720

REF. NO	PART NO	DESCRIPTION
*	790-010302-01	REMOTE CONTROL HANDSET RC-S720
1	411-010302-01	REMOTE NAME PLATE
2	201-010301-02S	REMOTE CAB TOP
3	334-010312-01	REMOTE CONTATIVE RUBBER (46 KEYS)
4	090-010302-03	PCB REMOTE BOARD
5	473-010311-01	BATT CONTACT SPRING SHEET-VE
6	472-010311-01	BAT CONTACT PLATE +VE
7	203-010311-01S	REMOTE CABINET BOTTOM
8	610-260206-10	SELF-TAPPING SCREW K/T 2.6X6
9	474-010101-01	BAT CONTACT SPRING WIRE +/-VE
10	210-010301-01S	REMOTE BATTERY COVER



XII. ABBREVIATIONS

TUNER

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AFC	Auto Frequency Control	MEMO	MEMOry
AGC	Auto Gain Control	MI-COM	MIcro-COMputer
ALC	Auto Level Control	MIN	MINimum
AM	Amplitude Modulation	MIX	MIXing
AMP	AMPlifier	MPX	MultiPleX
ANT	ANTenna	MW	Medium Wave(frequency)
BATT	BATTery	NC	No Connection
BLK	BLocK	NFB	Negative Feed Back
BUFF	BuFFer	OSC	OSCillator
COMP	COMParator	PCB	Printed Circuit Board
DET	DETect(DETector)	PLL	Phase Locked Loop
FLD	FLuorescent Display	Q.D	Quadrature Detector
FM	Frequency Modulation	Rch	Right channel
FREQ	FREQuency	REF	REFerence
GND	GrouND	REG	REGulator
H	High	RF	Radio Frequency
HPF	High Pass Filter	SEG	SEGment
IF	Intermediate Frequency	SELE	SELEctor
IHF	Institute of High Fidelity	SENS	SENSitivity
IND	INDicator	SIG	SIGnal
I/O	In/Out	S/N	Signal to Noise Ratio
JW	Jumper Wire	SSG	Standard Signal Generator
L	Low	STD	STanDard
LCD	Liquid Crystal Display	SW	Switch: Short Wave(frequency)
LCH	Left CHannel	THD	Total Harmonic Distortion
LED	Light Emitting Diode	TP	Test Point
LPF	Low Pass Filter	VCO	Voltage Controlled Oscillator
LW	Long Wave (Frequency)	VR	Variable Resistor
XTAL	Crystal		

COMPACT DISC

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
A-D	Analog to Digital(Converter)	Mb	Mega Bits
ADC	Analog Code Decimal (Converter)	MDA	Motor Drive Amplifier
BCD	Binary Code Decimal	MFM	Modified Frequency Modulation
BPI	Bits Per Inch	MW	Mono-stable Multivibrator
CD	Compact Disc	M2FM	Modified Modified Frequency Modulation
CIRC	Cross Interleaving & Reed	MOD2	Module 2 (Addition)
	Solomon Coding	MP	Microprocessor
CLV	Constant Linear Velocity	MSB	Most Significant Bit
CP	Clock Pulses	NA	Numerical Aperture
CRCC	Cyclic Redundancy Check Codes	NRZ	Non Return to Zero
D Level	Decision Level	NRZ-I	Non Return to Zero Inverted
D-A	Digital to Analog(Converter)	P	Parity Data
DAC	Digital to Analog(Converter)	PAM	Pulse Amplitude Modulation
DAD	Digital Audio Disc	PCM	Pulse Code Modulation
DEM	Dynamic Element Matching	PD	Phase Detector
DPD	Differential Phase Detection	PE	Phase Encode
DSV	Digital sum Value	PLL	Phase locked Loop
EFM	Eight to Fourteen Modulation	PNM	Pulse Number Modulation
EX-OR	Exclusive OR	PPM	Pulse Phase Modulation
FCI	Flux Changes per Inch	PWM	Pulse Width Modulation
FIR	Finite Impulse Response	Q	Parity Data
FP	Front Pulse	R,R1,R2,ect.	Data for Right Channel
FPG	Front Pulse Gate	RAM	Random Access Memory
F	Frequency of Sampling	RPG	Rear Pulse Gate
GF	Galois Field	SCOOP	Self Coupled Optical Pick-up
H&V(Parity)	Horizontal & Vertical	S&H	Sample & Hold
IIR	Infinite Impulse Response	S/N	Signal to Noise Ratio
KB	Kilo Bits	SSG	Standard Signal Generator
L,L1,L2,ect.	Data for Left Channel	SYSCON	SYStem CONtrol
LPF	Low Pass Filter		
LSB	Least Significant Bit		

CASSETTE

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AC	Alternating Current	MIN	Minute
A/D	Analog/Digital	MML	Maximum Modulation Level
AF	Auto Fader	MOL	Maximum Output Level
AMP	AMPlifier	MPX	MultiPlex
AR	Anti Recording	NC	Not connected (No Connection)
AT BIAS	Auto Turning BIAS	NFB	Negative Feed Back
ATT	ATTenuator	NORM	NORMal
BAL	BALance	NR	Noise Reduction
BEFB	and Elimination Filter	OSC	OSCillator (OSCillation)
BSS	Blank Search System	P	Pulse
CAPM	CAPstan Motor	PB	Play Back
CH	CHannel	QMSS	Quick Memory Search System
COMP	COMParator	OR	Quick Reverse
CONT	CONTinuance	RCH	Right CHannel
CRLP	Computer Recording Level Processing	REC	RECord (RECording)
CS	Chip Select	REV	REVerse
D/A	Digital/Analog	ROT	ROTation
DC	Direct Current	REW	REWind
DET	DETector	SEC	SECond
DISCRI	DISCRIminator	SELE	SELEctor
DUB	DUBbing	SENS	SENSitivity
EQ	EQualizer	SEPP	Single Ended Push Pull
FF or (F.FWD)	Fast Forward	SIG	SIGnal
FLD	FLuorescent Display	SPECT	SPECTrum
FREQ	FREQuency	STD	STanDard
FWD	ForWarD	SW	SWitch
GND	GrouND	SYSCON	SYStem CONtrol
H	High	TP	TEST Point
HPF	High Pass Filter	TRIG	TRIGa
IND	INDicator	VCA	Voltage Control Attenuator
IPLS	Instant Program Location System	VOL	Volume
L	Low	VOLT	VOLTage
LCH	Left Channel	VR	Variable Resistor
LEDLight	Emitting Diode	XTAL	crysTAL
MEMO	MEMOry	X1	Normal speed
MICOM	MIcroCOMputer	X2	Double speed

AMPLIFIER

ABBREVIATION	EXPLANATION
A	Analog
AC	Alternating Current
AMP	AMPlifier
CD	Compact Disc
COM	COMmon
D	Digital
D/A	Digital to Analog
DAC	Digital to Analog Converter
DAT	Digital Audio Tape recorder
DC	Direct Current
GND	GrouNd
L	Left
LED	Light Emitting Diode
MC	Moving Coil
MM	Moving Magnet
PCB	Printed Circuit Board
R	Right
REG	REGulator
REC	RECord
TR	TRansistor
SW	SWitch
V.AMP	Voltage AMPlifier
V.DISC	Video DISC
VR	Variable Resistance
VTR	Video Tape Recorder

AKAI

MODEL AC-520, 523R, 525K
MODEL AC-720, 723R, 725K

SCHEMATIC DIAGRAMS
AND PC BOARDS

TABLE OF CONTENTS

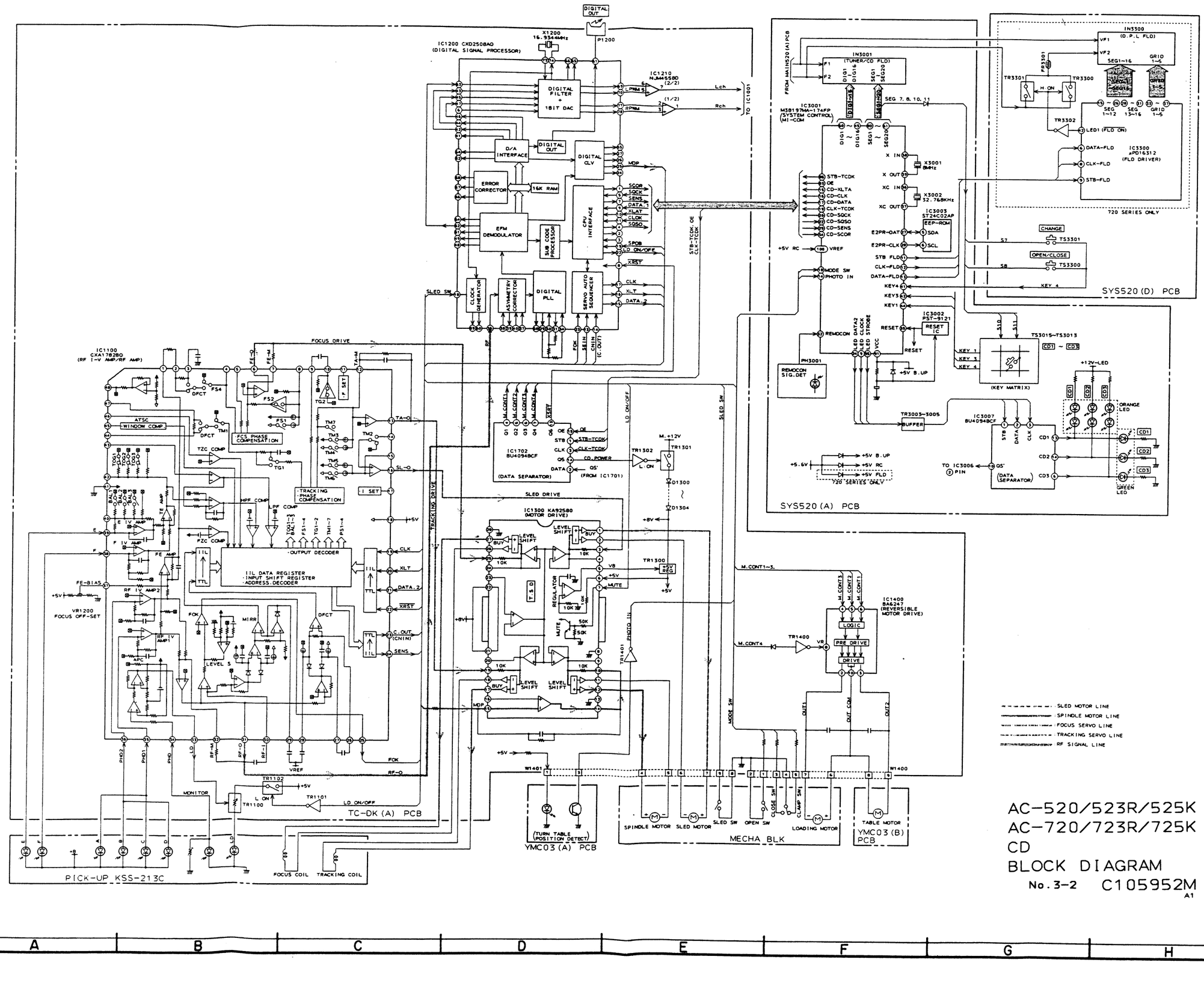
I. BLOCK DIAGRAMS
1. MAIN 3
2. CD 4
3. TUNER & TAPE DECK 5

II. SCHEMATIC DIAGRAMS AND PC BOARDS
1. CONNECTION DIAGRAM 6
2. MAIN 8
3. CD/TAPE DECK/TUNER 10
4. SYSCON/MECHA. DRIVE 12
5 POWER-SUB (AC-720,723R,725K) 15

Use these schematic diagrams and PC boards together with the provided service

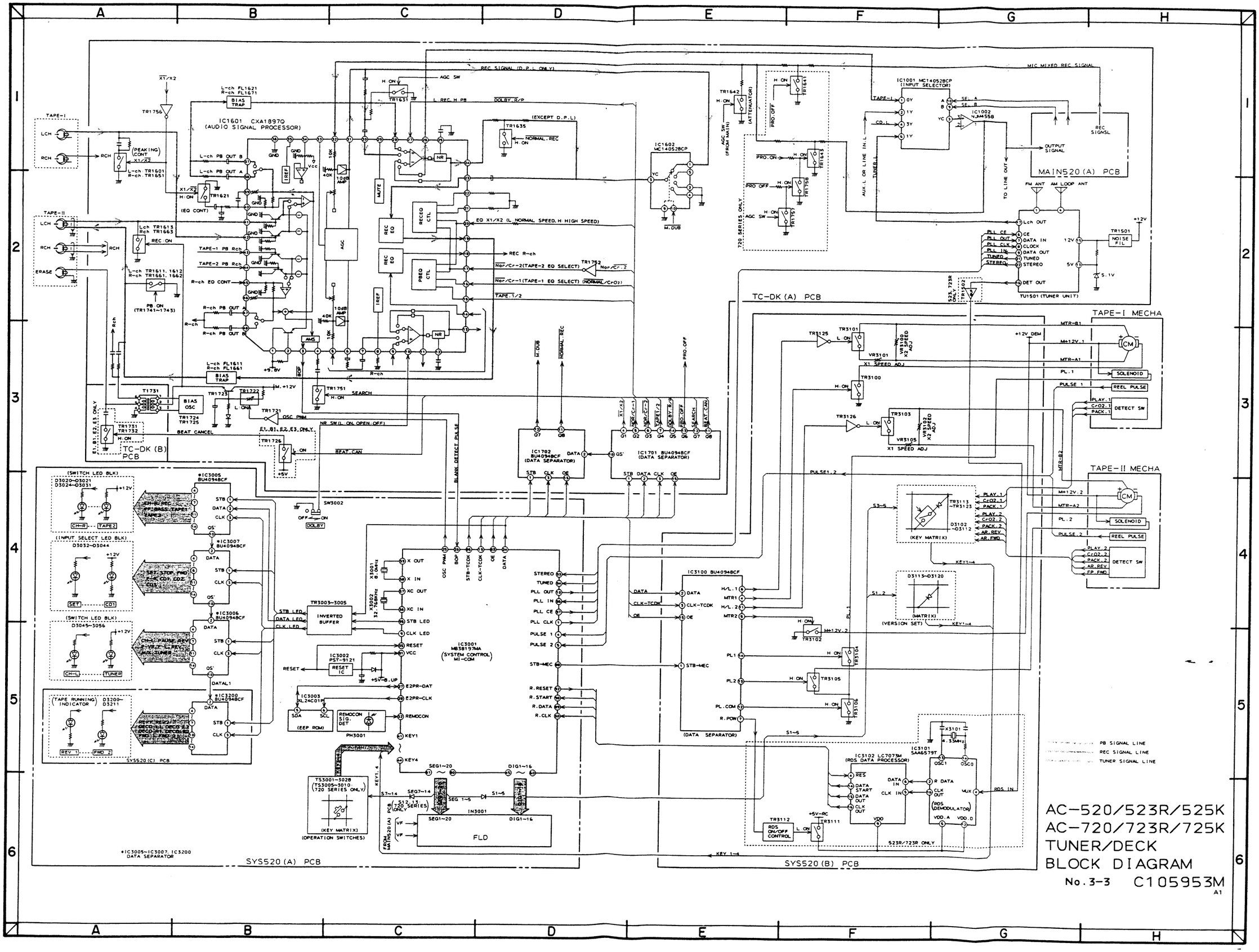
AC-520/523R/525K
AC-720/723R/725K
MAIN
SCHEMATIC DIAGRAM
No.5-2 C105902M
A0

I-01218 (Druck1



AC-520/523R/525K
AC-720/723R/725K
CD
BLOCK DIAGRAM

No. 3-2 C105952M
A1



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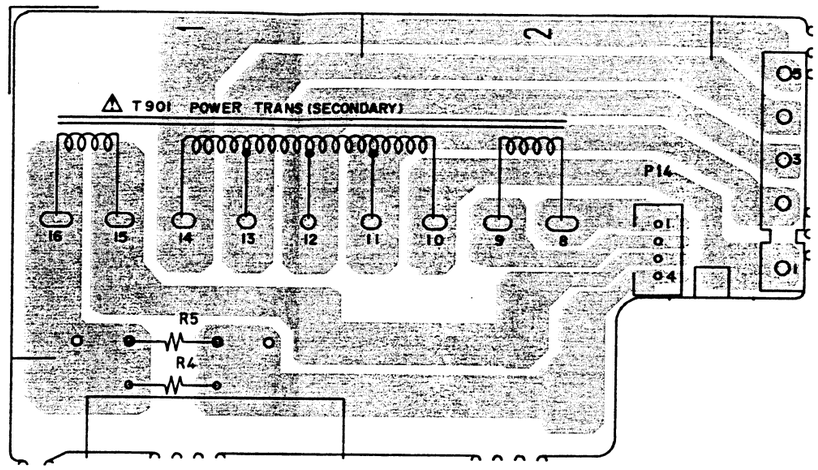
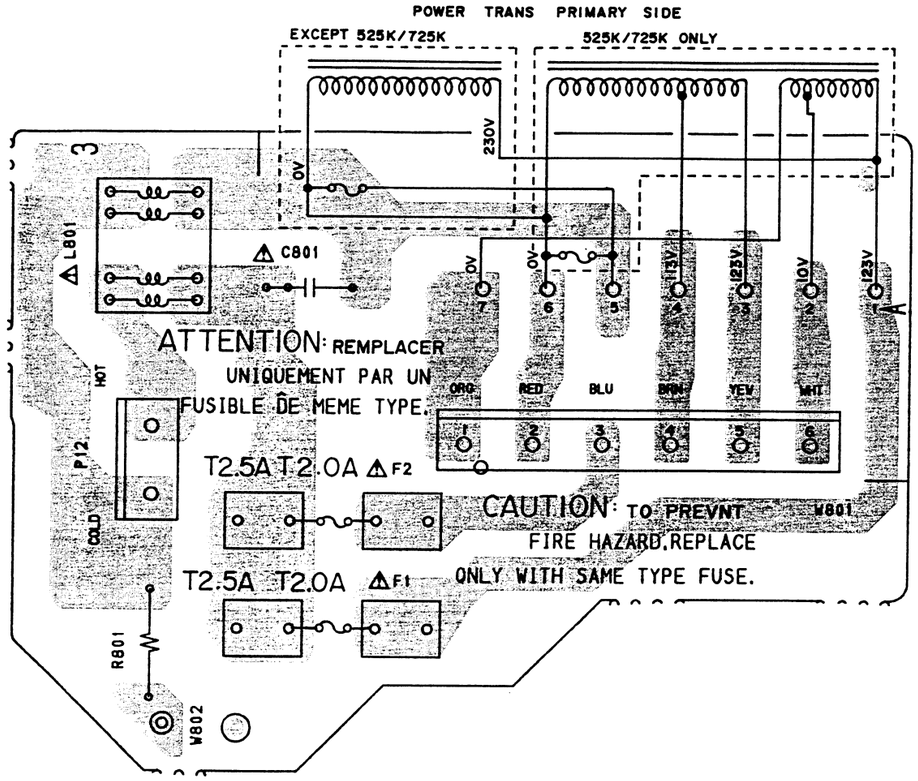


MAIN520(C) PCB C1059A501C



MAIN520(B) PCB C1059A501B

WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

NOTE: PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.

SYS520 (D) PCB
(CD OPERATION)
C1059A503D

SYS520 (E) PCB
(MIC JACK)
C1059A503E

SYS520 (C) PCB
(TAPE LED)
C1059A503C

SYS520 (A) PCB
(SYS FLD)
C1059A503A

SYS520 (B) PCB
(MECHA CONTROL)
C1059A503B

TAPE I

TAPE II

PB HEAD

REC/PB HEAD

ERASE HEAD

520 SERIES

720 SERIES

720 SERIES ONLY

TC-DK (B) PCB
(OSC)
C1058A502B

TC-DK420 (C) PCB (RELAY)

YMC03 (B) PCB
(MOTOR)
C1047A505A

YMC03 (A) PCB
(SENSOR)
C1047A505A

YMC03 (C) PCB
(RELAY)
C1047A505C

PICK-UP

	F1	F2	POWER TRANSFORMER
520 523R	T2.0A	-	C1048E, C1059E
525K	T2.0A	T2.0A	C1048U, C1059U
720 723R	T2.5A	-	C1049E, C1061E
725K	T2.5A	T2.5A	C1049U, C1061U

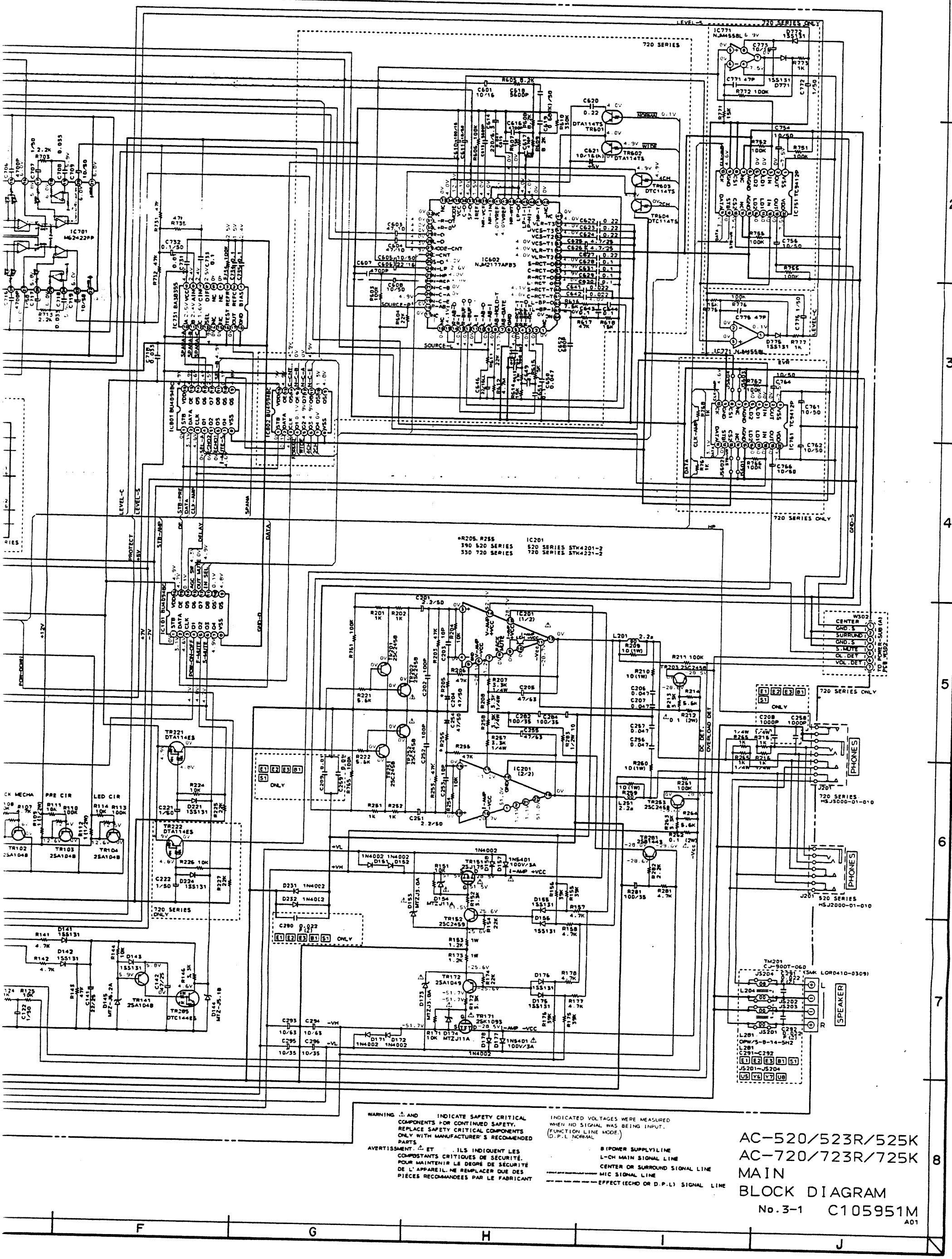
WARNING: ⚠ AND ⚠ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ⚠ . ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SECURITÉ, POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

AC-520/523R/525K
AC-720/723R/725K
CONNECTION DIAGRAM

No.5-1 C105901M
A1

TO TC-DK420(A) PCB W1006
TO TC-DK420(A) PCB W1021
P6
P21
720 723R 725K
525K
C507 0.1 0.22
C508 0.1 0.22
C513 470P 1500P
JS702
520 SERIES ONLY
JS701
520 SERIES ONLY
EXCEPT 520, 525K
525K, 725K ONLY
EXCEPT 525K
IC701 M62422FP
EVR
MTZ-J6.2A D751
MTZ-J6.2A D752
MTZ-J6.2A D753
520 SERIES ONLY
525K ONLY
725K ONLY
IC581 NJM4558L
C582 10/16
TO SYS520(A) PCB P3011
J11 TKC-V22X-A1 (520 SERIES ONLY)
J11A TKC-V24X-A1 (720 SERIES ONLY)
C86 100/35
CD MECHA
DECK MECHA
PRE CIR
LED CIR
TR101 2SA1048
TR102 2SA1048
TR103 2SA1048
TR104 2SA1048
PROTECT DET.
TO MAIN520(C) PCB P14
TO MAIN520(C) PCB P902
TO POWER-SUB(A) PCB P2301
720 SERIES ONLY
RL1, RL2 OSA-SS-212DM5 TV-3
MAIN520(A) PCB C1059501A



WARNING ⚠ AND INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

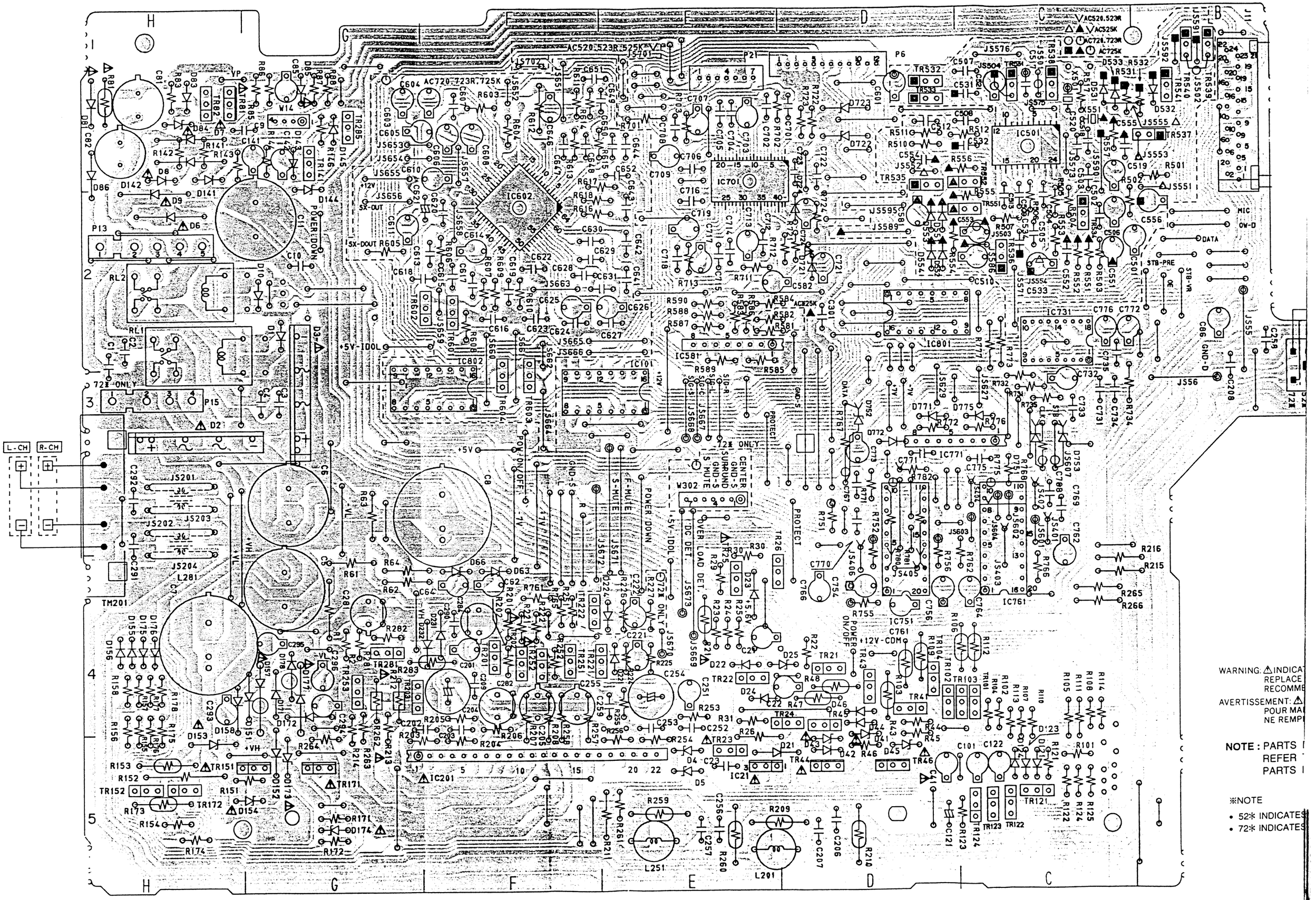
AVERTISSMENT. ⚠ ET ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL. NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

INDICATED VOLTAGES WERE MEASURED WHEN NO SIGNAL WAS BEING INPUT. (FUNCTION LINE MODE. D.P.L NORMAL)

B (POWER SUPPLY) LINE
L-CH MAIN SIGNAL LINE
CENTER OR SURROUND SIGNAL LINE
MIC SIGNAL LINE
EFFECT (ECHO OR D.P.L) SIGNAL LINE

AC-520/523R/525K
AC-720/723R/725K
MAIN
BLOCK DIAGRAM

No.3-1 C105951M
A01



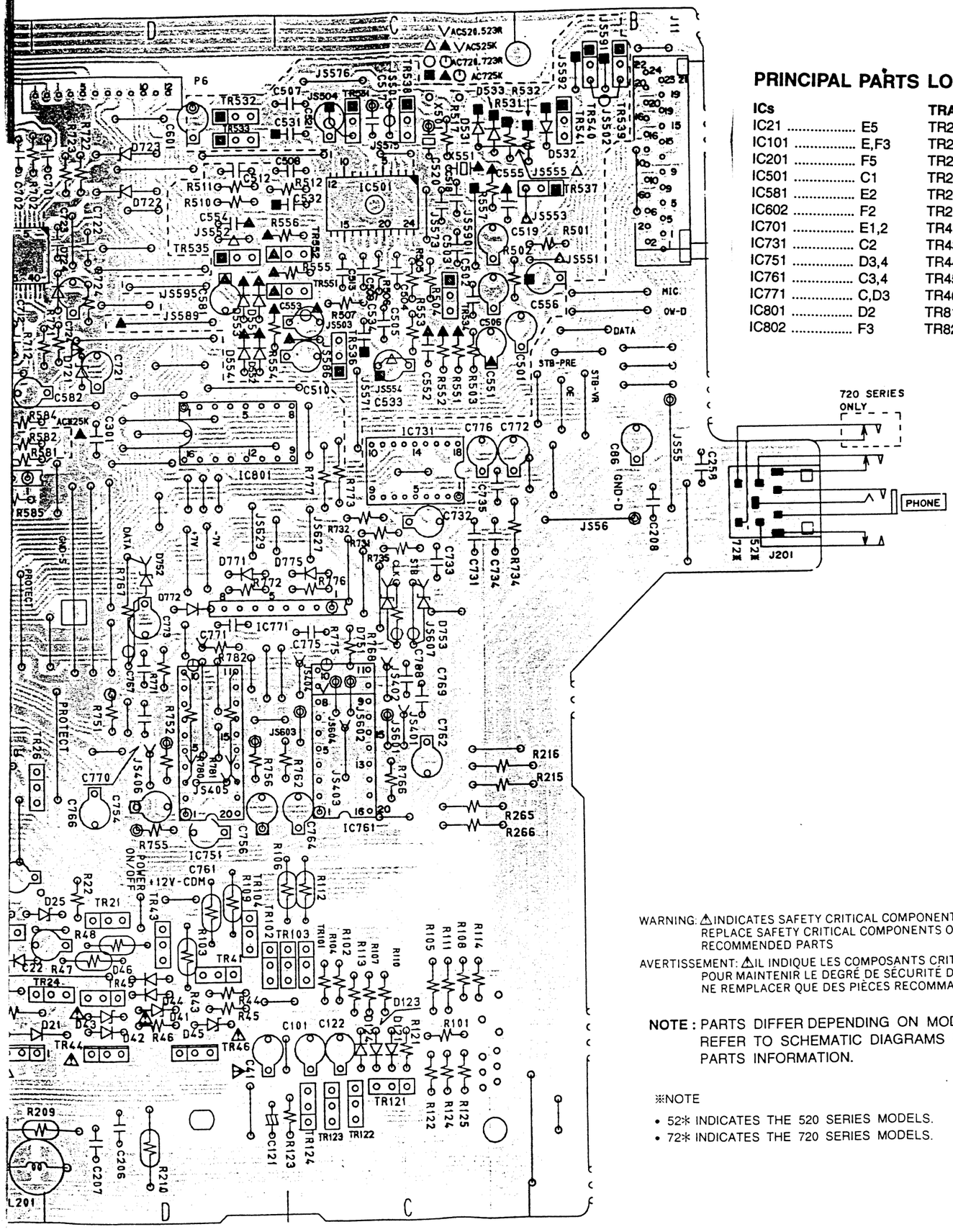
MAIN520(A) PCB C1059A501A

WARNING: ⚠INDICA
REPLACE
RECOMME
AVERTISSEMENT: ⚠
POUR MA
NE REMPL

NOTE : PARTS
REFER
PARTS

※NOTE

- 52* INDICATES
- 72* INDICATES



PRINCIPAL PARTS LOCATION

ICs

IC21	E5
IC101	E,F3
IC201	F5
IC501	C1
IC581	E2
IC602	F2
IC701	E1,2
IC731	C2
IC751	D3,4
IC761	C3,4
IC771	C,D3
IC801	D2
IC802	F3

TRANSISTORs

TR21	D4
TR22	E4
TR23	E5
TR24	D,E4
TR25	E4
TR26	D,E4
TR41	D4
TR43	D4
TR44	D5
TR45	D4
TR46	D5
TR81	H1
TR82	H1
TR101	C4
TR102	D4
TR103	C,D4
TR104	D4
TR121	C5
TR122	C5
TR123	C5
TR124	C5
TR141	G1
TR151	G,H5
TR152	H5
TR171	G5
TR172	H5
TR201	F4
TR202	F4
TR203	G4
TR221	E,F4
TR222	F4
TR251	F4
TR252	F4
TR253	G4
TR281	G4
TR285	G1
TR531	C1
TR532	D1
TR533	D1
TR534	C2
TR535	D1,2
TR536	C2
TR537	B1
TR538	C1
TR539	B1
TR540	B1
TR541	B1
TR551	C2
TR552	C1
TR601	F2
TR602	F2
TR603	F2,3
TR604	F2,3

CONNECTORs

J11	B1
J201	B2,3
P6	D1
P13	H2
P15	H3
P21	E1

WIREs

W14	G1
W302	E3

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

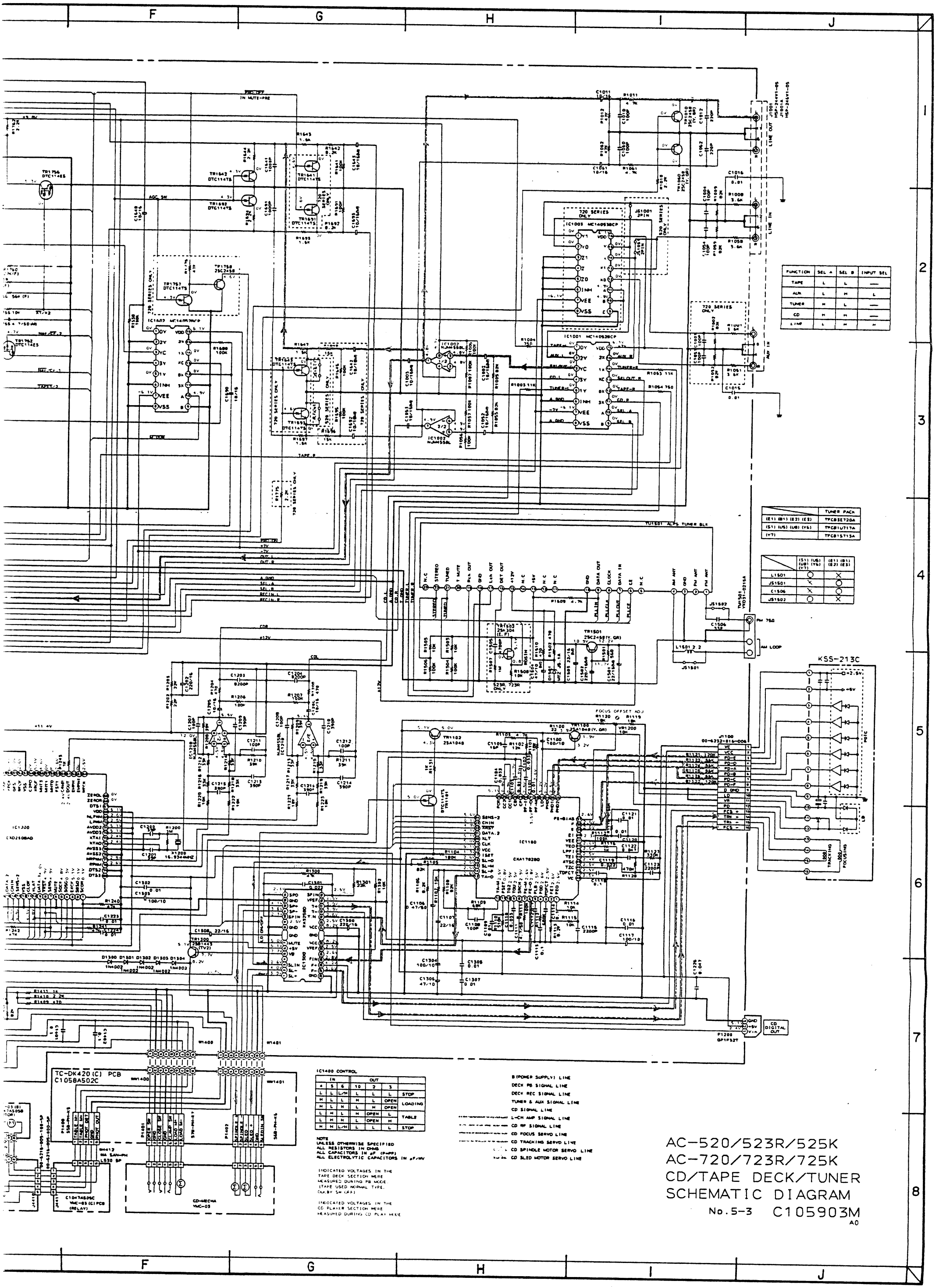
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.

※NOTE

- 52※ INDICATES THE 520 SERIES MODELS.
- 72※ INDICATES THE 720 SERIES MODELS.

1601/1651~ TAPE1
1611/1661~ TAPE2
1621/1671~ PB (DOLBY)
1631/1681~ DOLBY (CH)
1641/1691~ INPUT
1701~ IN/OUT
1721~ BIAS (A)
1731~ BIAS (B)
1741~ HEAD SW
1751~ DOLBY
1771~ REC IN
TAPE 1
TAPE 2
P1005
P1004
IC1681 CXA1897Q
IC1701 BU4094
IC1702 BU4094
IC1200 CXD2508AQ
IC1400 BA6247
REC EQ CONTROL
PB EQ CONTROL
REC EQ
PB EQ
MUTE
AGC
IREF
AMS
NR
NORMAL REC
TAPE 1
TAPE 2
TC-DK420(B) PCB
C1058A502B
TC-DK420(A) PCB C1058A502A
TC-DK420(C) PCB
C1058A502C
TO SYSCON101 PCB J3022
TO MAIN420/620(A) PCB P6
TO MAIN420/620(A) PCB P21
W1006
W1021 7PIN
WA SAN-PH L100 7P
VMC-03(B) C1047A05B (MOTOR)
VMC-03(A) PCB C1047A05A (SENSOR)
VMC-03(C) PCB (RELAY)
D4410 GL4800
TR4410 PT4800
+11.4V
+9.8V
+7V
-7V
OUT R
OUT L
A.GND
REC IN L
REC IN R
PHOTOIN
SPI A
SPI B
+12V
AGC SW
LINE OUT MUTE
INPUT SELECT



FUNCTION	SEL A	SEL B	INPUT SEL
TAPE	L	L	—
AUX	L	H	L
TUNER	H	L	—
CD	H	H	—
LINE	L	H	H

	TUNER PACK
(E1) (B1) (E2) (E3)	TPCB3E720A
(S1) (US) (UB) (Y6)	TPCB1U719A
(Y7)	TPCB1S713A

	(S1) (US) (UB) (Y7)	(Y6)	(B1) (B1) (E2) (E3)
L1501	○		×
JS1501	×		○
C1506	×		○
JS1502	○		×

IN			OUT			
A	5	6	10	2	3	
L	L	L/H	L	L	L	STOP
H	L	L	H	L	OPEN	LOADING
H	L	H	L	H	OPEN	
L	H	L	H	OPEN	L	TABLE
L	H	H	L	OPEN	H	
H	H	L/H	L	L	L	STOP

PRINCIPAL PARTS LOCATION

ICs

IC1001	C3
IC1002	D4
IC1003	B,C3,4
IC1100	B2
IC1200	D2
IC1210	D3
IC1300	B,C3
IC1400	A1
IC1601	E5
IC1602	F4
IC1701	F1
IC1702	F1

TRANSISTORs

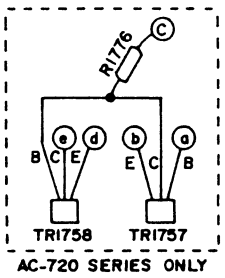
TR1010	B4
TR1060	C4
TR1100	A,B3
TR1101	B3
TR1102	B3
TR1300	C3
TR1301	D1
TR1302	D1
TR1400	B1
TR1401	C2
TR1501	B6
TR1502	A6
TR1601	E6
TR1611	D6
TR1612	D6
TR1613	D6
TR1621	F6
TR1631	F5
TR1635	F5
TR1641	F5
TR1642	F5
TR1643	F5
TR1651	E6
TR1661	D6
TR1662	D6
TR1663	D6
TR1671	E6
TR1681	D5
TR1685	F5
TR1691	D5
TR1692	D5
TR1693	D5
TR1701	F1
TR1702	F3
TR1721	F2
TR1722	F2
TR1723	C6
TR1724	C6
TR1725	C6
TR1726	F3
TR1741	E6
TR1742	E6
TR1743	D,E6
TR1751	D5
TR1752	F5
TR1756	C5

CONNECTORs

J1001	A3,4
J1002	F1,2
J1100	B3
P1004	D6
P1005	E6
P1200	A1,2

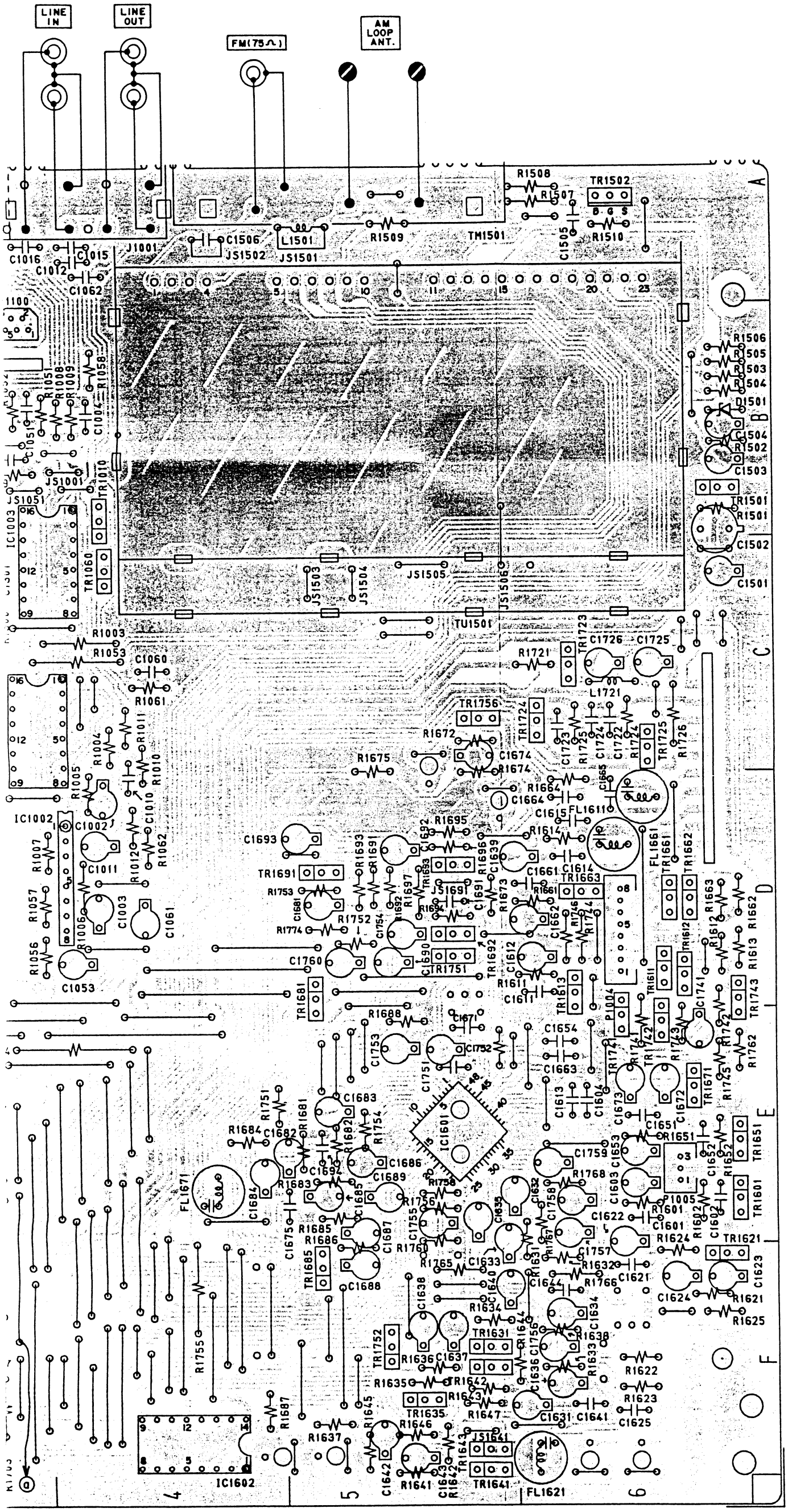
WIREs

W1006	E1
W1201	D,E1
W1400	B1
W1401	C1

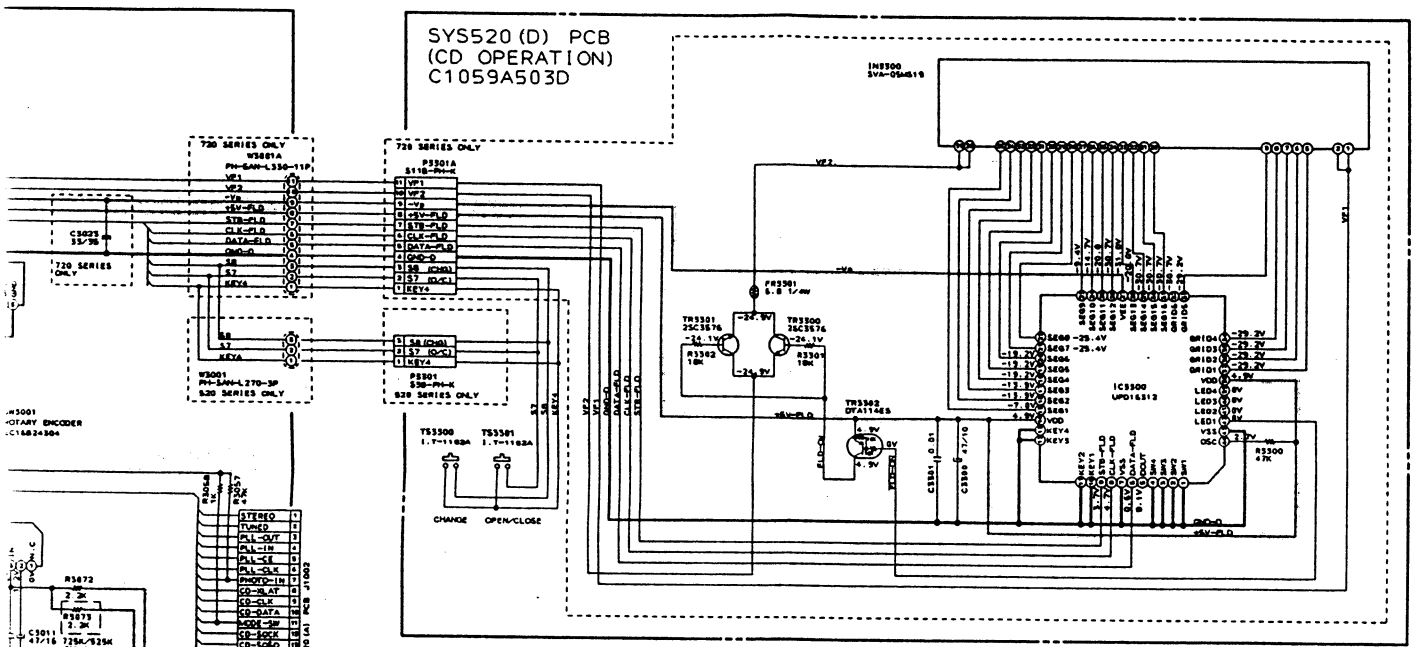


AC-720 SERIES ONLY

TC-DK420(A) PCB C1058A502


LINE IN
LINE OUT
FM(75Ω)
AM LOOP ANT.
R1508
R1507
TR1502
G S
R1509
TM1501
C1505
R1510
C1506
L1501
JS1502
JS1501
C1016
C1012
C1015
C1062
J1001
1100
R1051
R1008
R1009
R1058
C1004
C1051
JS1001
TR1010
JS1051
IC1003
TR1060
R1003
R1053
C1060
R1061
R1004
R1011
R1005
R1010
C1010
IC1002
C1002
C1011
R1012
R1062
R1007
R1057
R1006
C1003
C1061
R1056
C1053
JS1503
JS1504
JS1505
JS1506
TU1501
R1506
R1505
R1503
R1504
D1501
C1504
R1502
C1503
TR1501
R1501
C1502
C1501
R1721
TR1723
C1726
C1725
L1721
TR1756
TR1724
R1672
R1675
C1674
R1674
C1723
R1725
C1724
C1722
R1724
TR1725
R1726
C1665
R1664
C1664
C1615
FL1611
R1695
R1614
C1693
TR1691
R1753
C1681
R1752
R1774
C1760
C1754
C1690
TR1751
TR1692
C1639
C1691
R1696
R1693
R1691
TR1693
R1697
JS1691
R1694
R1673
C1661
C1614
TR1663
R1661
C1662
R1746
R1744
C1612
R1612
TR1611
FL1661
TR1661
TR1662
R1663
R1662
R1613
C1741
TR1743
R1762
R1611
C1613
TR1681
R1688
C1671
C1753
C1752
C1654
C1663
P1004
TR1741
R1741
R1742
R1743
R1745
R1671
C1751
C1683
R1751
R1681
R1754
R1684
C1682
R1682
C1692
C1686
C1689
R1683
C1684
FL1671
C1685
R1758
R1756
R1755
C1675
R1685
R1686
C1687
TR1685
C1688
C1638
R1634
TR1631
TR1752
R1636
C1637
R1635
TR1642
R1643
TR1635
R1647
C1631
C1641
R1622
R1623
C1625
R1645
R1646
R1637
C1642
C1643
R1642
R1641
TR1643
JS1641
TR1641
FL1621
IC1601
IC1602
C1759
C1653
R1651
TR1671
C1672
C1673
C1651
C1652
R1652
TR1651
TR1601
P1005
R1601
C1601
C1602
R1602
C1622
R1768
C1758
C1632
C1633
R1765
R1766
C1644
C1640
C1621
R1624
TR1621
C1624
R1621
C1623
R1625
C1757
R1632
R1631
R1633
C1636
C1756
C1634
R1644
R1638
R1639
R1640
R1767
R1761
R1760
C1755
R1759
TR1758
C1635

SYS520 (A) PCB
(SYSTEM CONTROL/FLD)
C1059A503A

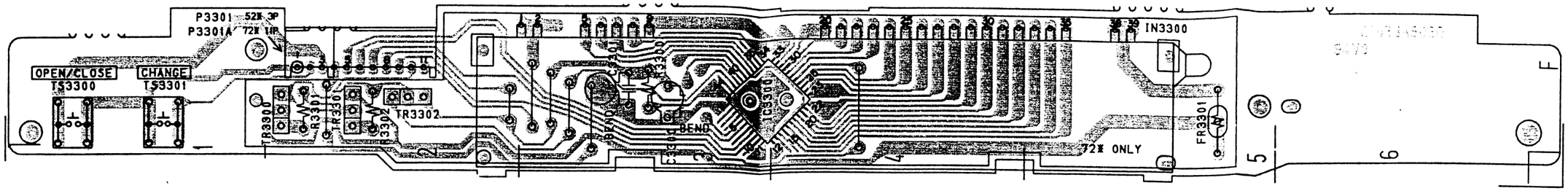


		E1/ES/B1	E1 (RGS)	US/UB/Y6	V7	S1	A8	J1	J2	NOTE
D3113		×	×	×	○	○	×	○	×	VERSION
D3114		×	×	○	○	×	×	×	○	
D3115		×	×	×	×	○	○	×	○	
D3116		×	○	×	×	×	×	○	○	RDS
D3117		×	×	○	○	×	×	×	×	KARAOKE
D3119		○	○	×	×	×	×	○	○	BEAT CANCEL
D3120	720 SERIES	○	○	○	○	○	○	○	○	PROLOGIC
	520 SERIES	×	×	×	×	×	×	×	×	

AC-520/523R/525K
AC-720/723R/725K
SYSCON/MECHA.DRIVE
SCHEMATIC DIAGRAM

No.5-4 C105904M

A0

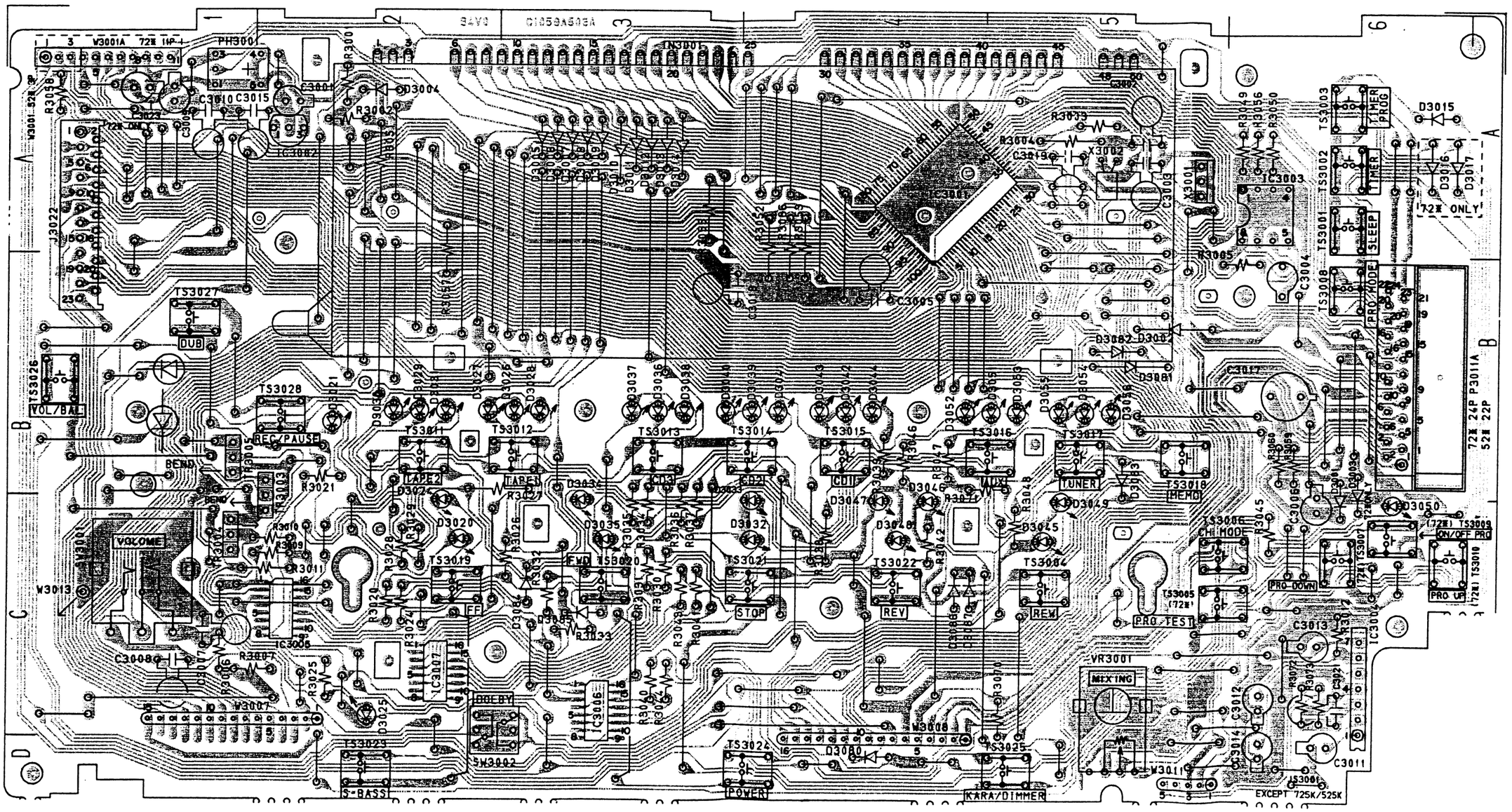


SYS520(D) PCB C1059A503D

※NOTE

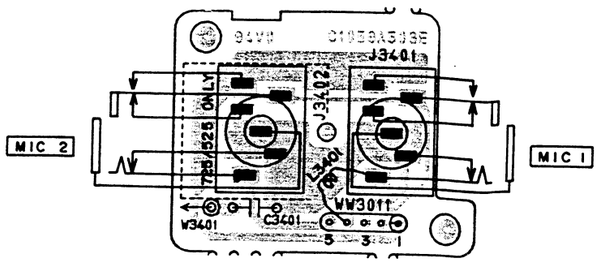
- 52* INDICATES THE 520 SERIES MODELS.
- 72* INDICATES THE 720 SERIES MODELS.

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.

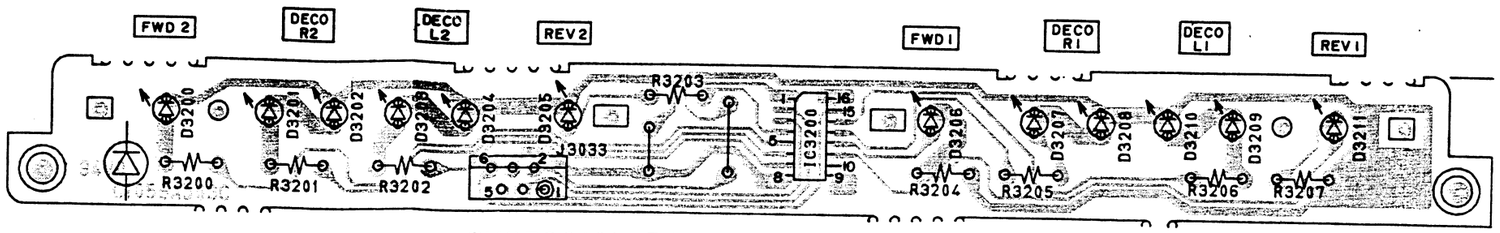


SYS520(A) PCB C1059A503A

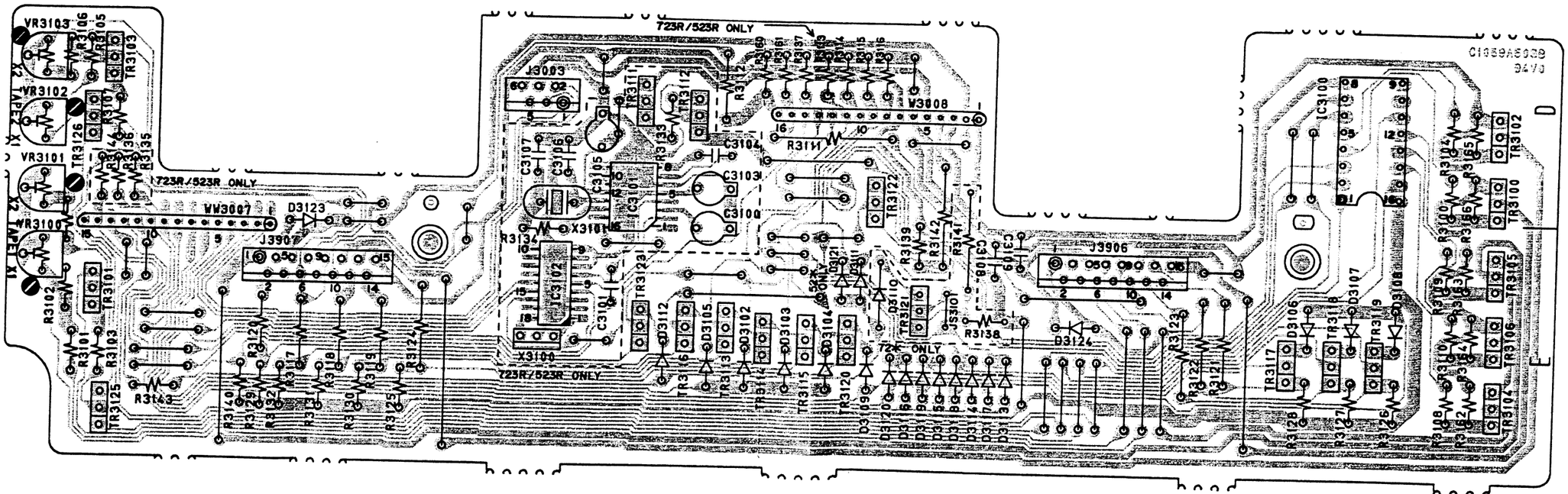
-01248 / Druck5



SYS520(E) PCB C1059A503E



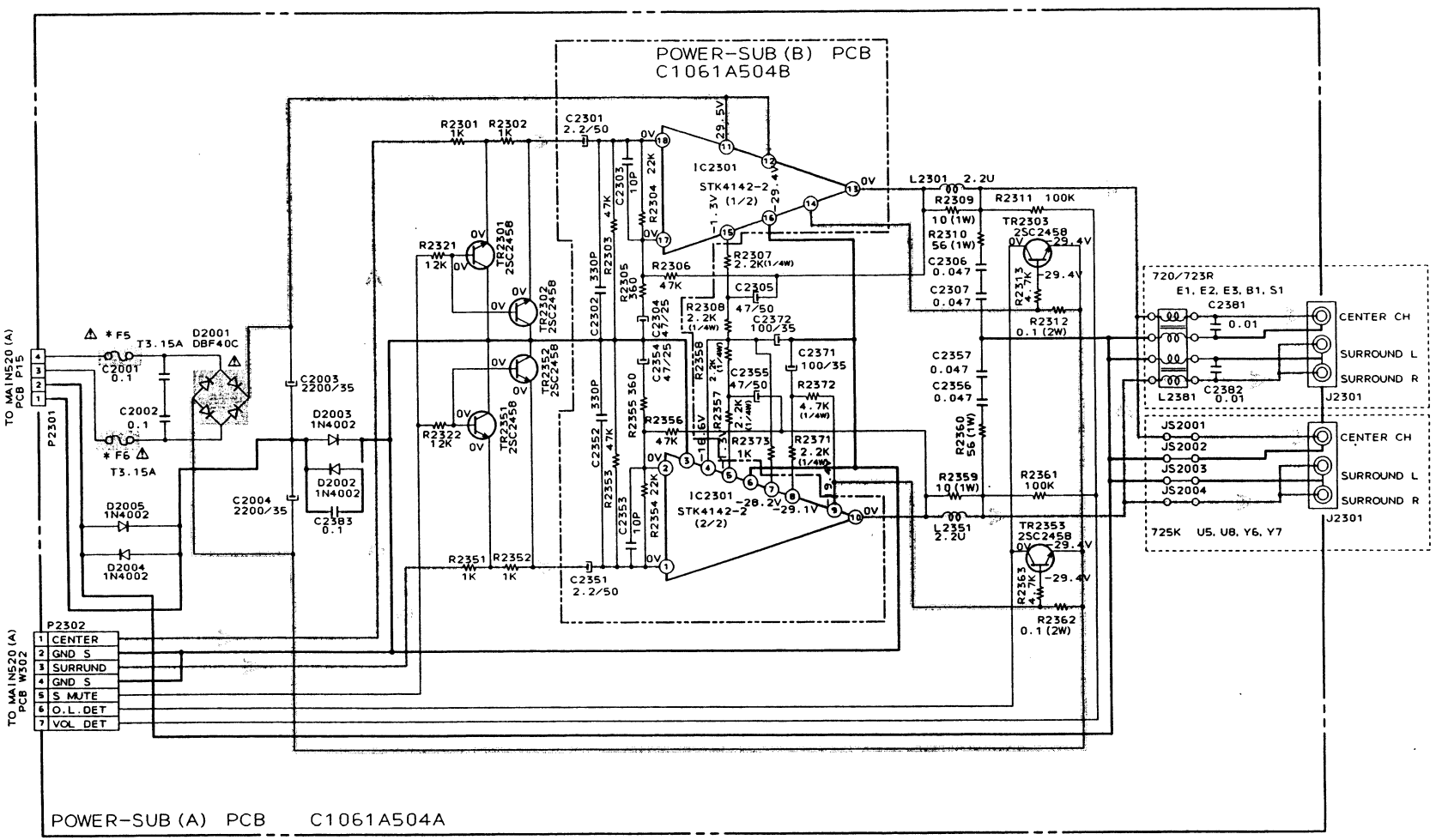
SYS520(C) PCB C1059A503C



SYS520(B) PCB C1059A503B

NOTE: PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.

XAI-01248 / Druck6



WARNING: ⚠ AND [redacted] INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET [redacted], ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

INDICATED VOLTAGES WERE MEASURED WHEN NO SIGNAL WAS BEING INPUT.

B (POWER SUPPLY) LINE

CENTER CH SIGNAL LINE

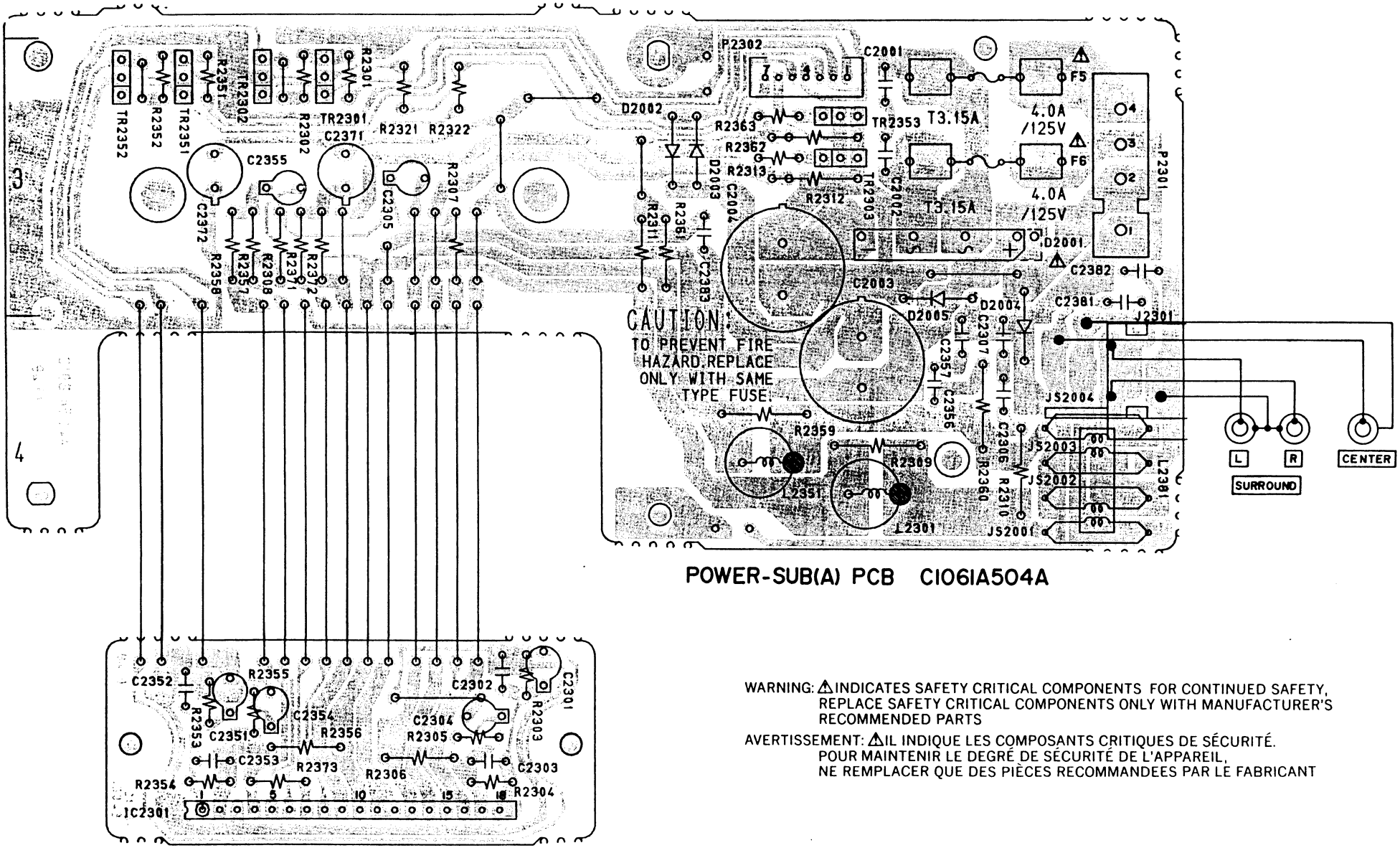
SURROUND CH SIGNAL LINE

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/8W
ALL CAPACITORS IN μF 50WV

AC-720/723R/725K
POWER-SUB
SCHEMATIC DIAGRAM

No.5-5 C105905M

A2



WARNING: ⚠ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT